

分 冊

Separate Volume

出願番号 特願2003-102207

[ST.10/C] : [JP2003-102207]

分冊番号 8/9

CERTIFIED COPY OF
PRIORITY DOCUMENT

BEST AVAILABLE COPY

出証番号 出証特2004-3059661

tgtggacaat gcttgtgttg ttctacagat tgacaatgcc cgtcttgctg ctgatgactt 900
tagagtcaag tataagacgg agctgatcat gtgcctgtct gtggagagca acgtccgtgg 960
gtccacaag gtcactgatg acaccaatgt cactcggcta cagctggaga cagagatgga 1020
ggctctcaag gaggagctgc tcttcatgaa gaagaaccaa gagaaggaag taaaaggtct 1080
acaagccctg attgccagct ctgagttgac catggaggta aatgccccca aatctcagga 1140
cctcagcaac atcatggcag acctcccggc ccagtatgat gagctggccc agaagaactg 1200
agaagagctg gacaagtact ggtcccagaa gactgaggaa cacaccacag tggtcaccac 1260
gcagtccacc aaaataggag ctgctgagac aacattcatg gagctgagat gtatagttca 1320
gtcctaagag atcaacctag actcaatgag aaatctgaag gccagcctgg agaacagcct 1380
gaggtgggtg gaggcccgct atgccatgca aatggagcag ctgagtgagg ccgtgctgca 1440
cctagattca gagctggcac aggcccaggc agaagggcag caccaggccc agaagtatga 1500
ggccctgctg aacatcaagg tcaagcggga ggctgagatt gccgctacta ctactactgc 1560
cgctgctgg aagatgggga ggacttcaat tgtggcgatg ccctggacaa cagcaactct 1620
atgcaaacca tccaaaagac tgtccaggat agcggatgac aaagtgggtg ctgagatcaa 1680
caacacaaa gttctgaggc gctgagccag cagaagcagg gtacactttg gggagcggga 1740
agccaataaa aagttcagaa gtcattggat gtcaaaaata aattggtcct gtttggggtc 1800
agaagtgttc caagaagccc agcatgacag ccagatgaga aactgacatg gcagatgaca 1860
cctcttctcc aggttgctgg aacagtgggt cagatagact tctatgtatt tttcttctcc 1920
ttaaggagct catagaagga acaaagtgca tcggacattc tacccttcat cagtttatta 1980
gtctaagggt ctctgtttga gcagatcact agttccaaag accaaataat ctttctttct 2040
tttttttttt tgagattgat tctccctctg tcgcccaggc tggagtgcaa tggcacaatc 2100
ttggctcact gcaacattcc cctcccagat tcaggtgttt ctcatgcctc agcctctgga 2160
gtagctggga tgacagatgt gcaccaccac acccagctaa ttttctatt tttagtagcg 2220
aggggatttt gccatgttgg ccaggctgtt attgaactcc tggcctcaag caatccactt 2280
gcctctgtct cccaaagtgc tgggattaca ggcatgagcc accatgcctg gcccccaata 2340
atcttaaaaa agagtatagt ggccccatgg taactctgtc ttctgcccc gaacagccct 2400
ggctggatta tcctcctggt agaaatcaat tttgatcatc ctggcaggaa atcaggatac 2460
agggcagctt cagacaggag taccacatcc ttctcagaaa tcaaccaaca tgagatgctg 2520
agtgaagct ggtctcttgg ttaagagacg gatgtaggca gggctggtaa caagtagtta 2580

gaatcaaaga ctcaaactaa acctgctagc taacaccagc ttcactgatg gagataccag 2640
 agcaggtagg ttgcagagag gtaatgacat ttgacaatgg tcaagagacc aacatggagg 2700
 ttctcattgg agcctccaaa atggaggctc tcttggttga gctacaatgg tttggggatc 2760
 agagcatctg ggctctattc ttggcctttt ctctcaagtt catgactcta atacagcccc 2820
 ttctccccctt tggcattagt tttctcatct ataagaagg gtaatgaatt ttactcccca 2880
 tcccagggtcc ccttactgca gtatgagaag ggtgagatag ggactatttt aaagggtgt 2940
 gagagagtct ccagagaggg ctgtgatgaa catctgtatt cctcatggaa tggacagccc 3000
 aggaggatgg tacatttaag taagacaaag caagactctt ctaatggtaa gagatgtaag 3060
 accagtaaat tggatcacgt gccctggatg atatgtaatt cctcatagt gctctagcct 3120
 caaaatccca aatattggtg aggatctccc aaagctgcta atgtcaaaaa ctttgatttt 3180
 actgtagtta aagtgatgga aatcattagc tttaaattac tggggaaata taaaagatga 3240
 tttgaggggt aagctctatc aattatgtac ttaagcaaga accagactca agatcaggaa 3300
 aaaaaaata aataaaacca aatacgttca taattag 3337

<210> 1314

<211> 4916

<212> DNA

<213> Homo sapiens

<400> 1314

atcacagggc catgccctcg gggctcaagg ccagagaggc tccgcgcttc caggacccga 60
 gagctaaaga taatgaatgg gagagagcga gactggagga ggtaacgaat aagtccccac 120
 caccttgccc ataacgcgtt gctttcagtc acgttccgcg aactggcgaa gttataatat 180
 tatgatcact gtttttaatg gaagatgatt gaaagtgaaa acctaaacca agaagaaata 240
 attaaagaac tgtgtttgtg caatggctta tcttatgaga tggttggaca agaaggatca 300
 gatacatcaa agttggagat gtttttctta gggatcctc gtatagttgg attatcatta 360
 tttcctaatt taacgagtct taccattgtt gctcaagata taaaagaaat ttcagggtta 420
 gagccttggt tacaacttaa agaactttgg attgctgagt gccgcataga gaaaattgaa 480

ggtcttcaag aatgtagaaa tttggaaaaa ctatatattat attttaataa aatttccaaa 540
atagaaaatt tagagaaatt aatcaaattg aaggttcttt ggctgaacca caatacaatt 600
aaaaatattg agggtttgca aactttgaag aattttaaag atctcaacct tgctggaaat 660
ctaataaata gcattggtcg atgtcttgac tccaatgaac aactggaaag attaaacctt 720
tctggtaacc aaatatgttc tttcaaggaa ctcacgaact taaccaggct gccttgctta 780
aaggatttat gtctgaatga ccctcaatat acaaccaatc cagtttgtct tctgtgtaat 840
tattccacac atgtattata tcatttgcct tgccttcaaa gatttgacac attggatgtg 900
tcagcaaagc aaatcaagga actggcagat accacagcaa tgaaaaaat aatgtattat 960
aatatgcgta taaaaactct tcagaggcat cttaaagaag accttgaaaa actgaatgat 1020
caaaaatgca aattacaaaa gttgccagaa gaacgagtaa aattattcag ctttgtgaag 1080
aaaactttgg aacgagaact ggctgaactc aagggtctcg gcaaaggga cagtgtgga 1140
tccaataaca gtaaagtaac tgatcctgaa acactgaaga gttgtgaaac tgtcactgaa 1200
gaaccaagtc ttcaacagaa gatattggcc aaactaaatg ccttgaatga aagggttaaca 1260
ttctggaaca aaaaactaga tgaaattgaa gcaatttatc atattgaagt aaaacaaaag 1320
aagaaaagtc atggcttatt gatccactt ttgttaattg agttagagac tgtgggaaat 1380
ttccattttg aagaaggcac tcgatctgat gactggttta atttctgcta tgaattaatt 1440
ctgtcacgtt tttgtgcctg ggacttcaga acatacggta ttacaggagt aaaagtaaaa 1500
cgcatcatta aagttaacaa ccgtattctg agactaaaat tcgaagagaa atttcaaaag 1560
tttttggaga atgaagatat gcatgattca gagagctacc gaaggatgct ggaatgcctt 1620
ttttatgttt ttgatcctga agtttcagtg aagaaaaagc atcttctaca aatacttgaa 1680
aaaggattca aagacagtga aacaagcaag ctgcctctca aaaaagaagc catcattgtt 1740
tctaacagtc taagtataag tgagtgtccc agaattgaat ttttacagca aaagcacaaa 1800
gatgagaaga aaatctctct taagcatgag ctcttcagac atggcatcct cctcattaca 1860
aaagtitttc ttggccagag tgttcaggcc catgaaaaag aatccatcag tcaatccaac 1920
tatccaatgg ttaattcagt gttcattcct cggaaatatt tactaaattc tgtcatggga 1980
caaagaaaact gtgattgcag tgttcggcag tgcaagtggc ttgtctttga tcatgacctt 2040
gttttgccgg aatatgttgt tgaatttgag tatattacaa tggatcaagcc acctcttta 2100
ttttctgtat tcaacaatgt tattctagaa gaaagcaaaa aaaaccaga agtatcagta 2160
ttttccaagg atttgaaatt tgatgatgaa gttataaaaa tggagcccag aatcaaggcc 2220

cgacccaaaac tgattagttt ggatgataaa acaatacttt cccttgcaaa gactagcggt 2280
tacagtcata ttgtgagtct gaatctacat ggaaacagct tgagtaaatt gagagatctc 2340
tccaagttaa caggacttcg aaaactaaac attagcttta atgaatttac ctgttttagat 2400
gatgtatacc acttgataaa ccttgaatat ttggatgcaa gccataacca tgtgataacc 2460
cttgagggat ttagaggtct gatgaaactg aagcacttag acttgagctg gaatcaactg 2520
aaaaaatctg gcaatgaaat aaatatgtta tgcaaacaca ccacaagcct tctcactctt 2580
gatattcaac ataatccatg gcaaaagcca gccacattga ggctgagtgt tattggcaga 2640
ttaaagactc ttaccatttt aaatggagtc ttcattttctg aagaagaagc aacagcagct 2700
atgaaattta ttgcaggaac aaggattact cagttatctc tcttacggca ttctagtact 2760
aaagaggaga gaccacggat acttagtata tggccttctg ccaaattct gacgcaggtt 2820
tcaaagttag gacctatttt acatctgagt ggaaactgct acttgaagat aactgcctta 2880
aatttagatg gacaacatct ttttgaaatc acaaatttag aaaaattgga aaatttgaaa 2940
tgggcatcat tcagcaataa taatctcact aaaatggagg gtctggaatc ctgtattaac 3000
ttggaagagc tcacattaga tggaaactgc atctcaaaga tagaaggtat ttccaagatg 3060
actaaattaa ctgcctcag cataaataat aatcttctca ctggttggga agagcatacc 3120
tttgataaca tgcttcatct tctctgctt tctcttgaga acaacagaat cacttcattg 3180
agtggtttac aaaaatcttt tactcttggt gagttataca taagcaataa ctatattgct 3240
gtcaatcagg agatgcacaa tttaaaggggt ttatgcaact tggtcattct agacatgtgt 3300
gggaacatca ttatatggaa tcaagaaaac taccggttgt ttgtaattatt tcatcttcca 3360
gaactgaaag ctttggatgg gataccaatt gaaccatcag agactgacag tgcaaaagat 3420
ttgtttggtg gtagacttac ttctgacatg attgcagaac gacaaggaca ttccaacttc 3480
aaacaaatgc aagaactaaa ttggacttca tcatctatta gctgtattta ctttgtctaa 3540
attcagaaca gtggatttga ttccagtcga ccaatttaga aatgtgtgta atgtgaatct 3600
acagaacaat catcttacct cattcagtgg attaatttat ctacctaag tgaaggtctt 3660
atgccttaac tataatcata ttgaatcaat catgcccaga ctaaagcctc agactcactt 3720
aaccagtaga caactactgt accagaaagt gccttcaagt ggctatggac agcaaggaat 3780
ttcaaaaaca aacagagata taatgagcag tgaaaatttg cctccaataa tgcacagttt 3840
agaagtctt catttgggct acaatggaat ttgtaatttg atccagctac aacttaacag 3900
actaagaaat ttaaaattcc tctttctaca gggtaatgaa atcagccaag ttgaagggt 3960

tgacaactta gtagtccttc aagaattggt agtggaccat aaccgcatcc gatcatttaa 4020
tgacagtgct ttgccaac caagttcttt attggcactt cacttggagg aaaacagact 4080
acgagaactg ggcaaattac aatctttggt aaaactagag aaactcttcc taggatataa 4140
taaaatccag gatatcacag aactggaaaa acttgacgtt atctctactc tcagggagct 4200
tacagtgtat ggcaatccag tgaatttgta gaaaaatgct acatcgccac atgcttatat 4260
ttcgactgcc taacttacag atgttagatg gaagtcctgt gaattcagat gatagggcaa 4320
aagctgaatt tcacctgct gaactacaag caaagaaaaa ttcgcttatt cctgttacct 4380
actctcctat ggatggcaga tcatttggcc aagtgaaaac tcctcccata gagataacaa 4440
atgtacttct gcctagtgga ttcagccatt acttgggac tgacgtcact ttaactcctg 4500
aagttgaaga caaaaaaac aagaatgctg ggattctgac aaataatcct cggagcatcc 4560
atgcagaaat agcttttcgg caactcagag ggataagtat ctctccatct cttttatcac 4620
atcagaatat tgcattcct actgcacaaa tataccagag caaccaagat aagagaagaa 4680
tttttgggag caactttcca agatcaaact gaatgtaact gcctaaagag aatgagcat 4740
acaccaagaa actcacctgt ttagtagttg tacaaaaact agcggacagt ggtcagttaa 4800
aaaaaaaaa aaaaagataa tcatgttact taagttactg aagcattca gttccatatg 4860
aagataatct attacccttc atgaacttga tttaatatca cctctcttaa actttc 4916

<210> 1315

<211> 4117

<212> DNA

<213> Homo sapiens

<400> 1315

tttttctctt tcaaaaacac tctgccatct tttcaaggta tccgccatct ctttcaagca 60
tgtgaggagc ttgataactt ttgttggggg tcggtgttca gaatgacaag ggtcttggcc 120
aggctggagt gcagtagcac agtcataact cactctagcc tcaacctccc agggcacaag 180
cgatcctccc atcttagcct cctgagtaac tgggactaca ggcacgtgcc accacacct 240
gctaattttt tttttcttt ggtattaata tttttagag aaggagtctt accatgttgc 300

ccaggctggg ccagaactcc tgggctcaag caatcctgcc ttggcttccc aaagtgtctgg 360
gattacaggc atgagccacc atgcctggcc ctagagcttg ataatttcat tcattcattc 420
tttttttttt tttttgagac aaagtctcag tctgtcaccc aggttggagt gcaatggcgc 480
aatcttggct cactgcaact tctgcctccc gagttcaagg ggttctcctg cctcagcctc 540
ctgagtggca gggattacag atgcccacca ccatgcctgg ctaatttttg tatttttagt 600
agaggtgggg tttcaccatg ttggccagggt tgggtctcaa ctcccaacct caggtaatct 660
gcccacctcg gcctcccaga gtgctgggat tacagggtgt agctcagacc ttgataattt 720
cagtgaggaa aaaaaaaaaat ctcattttaca tgtttgtgcc aagtgtgtg ctagtgggtg 780
gggacaccat gataagtatt tgataagtta tgtttcttga ttttaaggag tatagaagaa 840
atggttaagt caggactagg aggagtgaga gaaatggaag caacctttga ggtaggccct 900
gaagaacgag cagaaattcc ctaaagcggg gtgggagcgg caggaccaac ctggccaact 960
tcggaccttc tttgaggtcc aaagtcagggt actttgaact gacttccagg atacctggag 1020
taaagtacag ttctgtttga agtgtttgtt tggaaagatg agtttgttcc agtgaggttg 1080
ctgtattaga gaaccacttg agagtttgct gcccacagtg tcatctgtga gaaatattag 1140
gtgaacgcaa aaagttgagg ccagctgaac caagccatgt aatatacaca ccttccacat 1200
agatcagtca cctcagttga cttgtatgtg agccacattt gtgtccatct gatgttacag 1260
cattcactct ctttgcctcc actttctaat aactcacaat ctgtaaactg actgaggccc 1320
gcttccacag agcaagcttc aggccctttt caaggacttg aaaatactgg aaatctgtcc 1380
ggatccaaat tattttgcaa gccagatgag taaccagagg gcatgaaagg ttgagaacat 1440
ttgacttccc tgcaaacctt ggtatagatc acttcctttt ctgtaggaaa ggaaaggcac 1500
caaagagcac aatgagtaca agaaagcgtc gcggtggagc aataaattct agacaagctc 1560
agaagcgaac tcgggaagca acctccaccc ccgagatctc cttggaagca gaacccatag 1620
aactcgtgga aactgctgga gatgaaattg tggacctcac ttgtgaatct ttagagcctg 1680
tgggtggttga tctgactcac aatgactctg ttgtgattgt tgacgaaaga agaagaccaa 1740
ggaggaatgc taggaggctg cccagaggacc atgctgacag ctgtgtggtg agcagtgacg 1800
atgaggagtt gtccaggac agagacgtat atgtgactac ccatactccc agaaacgcca 1860
gggatgaggg cgctacaggc ctcaggccct caggaaactgt cagttgtccc atctgcatgg 1920
acggatactc agagatcgtg cagaatggac gtctcatcgt ttccacagaa tgcggccatg 1980
tcttctgtag ccagtgcctc cgtgattccc tgaagaatgc taatacttgc ccaacttgta 2040

ggaaaaagat caaccacaaa cgttaccacc ccatttatat atgaagtatt cagagccccc 2100
caggagagac ggatggacag acagacagcc aggttctcca gtggtatctg cctccatttt 2160
cctgagatca aaaagactgt ttcgaaacca acatctgata tgtaaactgc tcttttgttt 2220
ccaaccctt ctttttgta tctccagttt gatgctatgg cgctggaccc agggccctcc 2280
caggccatct ctgttctct ggggtggtcc agttctagag tgggagaaag ggagtcaggc 2340
gcattgggaa tcgtggttcc agtctggttg cagaatctgc acatttgcca agaaattttc 2400
ctgtttggaa agtttgcccc agctttcccg ggcacaccac cttttgtccc aagtgtctgc 2460
cggctgacca atctgcctgc cacacattga ccaagccaga cccggttcac ccagctcgag 2520
gatcccaggt tgaagagtgg ccccttgagg ccctggaaag accaatcact ggacttcttc 2580
ccttgagagt cagaggtcac ccgtgattct gcctgcacct tatcattgat ctgcagtgat 2640
ttctgcaaat caagagaaac tctgcagggc actcccctgt ttcctaagaa cgaaaaagtg 2700
caataaaggc cattcgttac ctacttttca gcagcccaca agatgtagca ctattagtgt 2760
ccccctcaga ggcttaatgt tgcctgtgga gcagtgccca tcccagcccg tttctgccca 2820
ccagttgttc tcaggaacct taccatgct ccagcgtcct tcacctggca caggacatgc 2880
aagataaata gggcaggcac gtgtttgggt gtcctctctt ttctgataaa atccatcccg 2940
tgtttgccac acgccctcca gtcctcagtt cccactgcct aacgtctgcc cccgtgtaga 3000
tactgagagg tgggtggcagt aattgtggcc ttatcagccg ctcagttcca ggcttttgcc 3060
caggtcactg ttgccccatg ttcggagAAC ctggcccacc tgtcttggtt ttctcactct 3120
tcccaacca gtgccgttta tttcagaagc ttcctggcca ctgggcttgg atgcttcggg 3180
cttctgactg ctccataggt tttgactggt gaaacagggg cccagatgac aacctctct 3240
tcgtccaca ggtacgcggg agcctcaggt tctctcaggg gcagcaaagt ggcccaagct 3300
gcccctgaca gcacagggcc tgggggtggc taacgagaga ggccttacag tgccggcatg 3360
cctcctcttc cactgtcgtc cttcctcaga gggcctcacg ccaaacaac ggccttttcg 3420
tgtgaaacat cttcagggcg ggaaaggggc cacttctggc tttgttagca ataactgacc 3480
ttcagtttac cttctgaag gagcagggac tcagcacaga attcacttta gacggggctg 3540
aaggagtgtc cctcctctat gtgaaaagaa aattgtttta ttcttcattc tgacttttta 3600
actgtttggc tcacttccag ttagtttgaa tgaaaataat aattttctac ttggagttaga 3660
agagggcaga atccgcagct ctcatcattg tgatgtgtag catgtctgcc ctctgactgg 3720
acatcattgc cattaacttt cttctgggca tcacggcagt gtcacgatgc ccagacttgg 3780

agcaaggcaa ccttggagtc agtccactca taaaatatgg taacacccat tttaaaattt 3840
aagttttgtc cttaaagaca acttcagtgg ttaattataa aagttgtgtt acttcgtcct 3900
aaattaaatt gatagaaaga tttaaaaatg tgttttgttt ctactattca gaaactgcga 3960
actagggaaa ggttggatat aaaaaatgct tttccttttt tcaatgtaca tagttcaact 4020
ctttctttgt tacatttaaa ctatatccat ggatatcagt ctgctttgga ctctctgtct 4080
agtgttacag atggaaataa aaccattaat ttgaacc 4117

<210> 1316

<211> 3779

<212> DNA

<213> Homo sapiens

<400> 1316

cgattacgct caaggataaa aagctttgct atgaccaagg cattagtgga catcacctta 60
tggagacttc catgacggtc aatgtggtgg gttcatccgg gctctgcttc caggaaacac 120
acctggggcc ccatatgcaa gtattggagc ttgggatact gggccctggg aggggaaggt 180
tggggtcggg tctcaacagg gctaattccc ctgagaatcc cactaatgca ttcataattt 240
cctttcttct cattctttct caacattcat ccaccaccc actaccacc actaactcct 300
ttcattcttt tttctttaag acggagtttc actcttgttg cccaggctgg agtgcggcgg 360
cgcagtcttg gctcactttg cctccttggc tcaagtgatt ctcttgctc agcctcccaa 420
gtagctggga ttataggcgc ccgccaccac ggctggctaa tttttgtat ttttagtgga 480
gacagagttt ttccatgttg gccaggatgg tcacaaactc ctaaactcaa atgatccacc 540
cgctcagcc tcccaaagtg ctgggattcc aggtgtgagc caccatgccc ggcctaactc 600
ctttcattca ttcacgtttt cagaaagggc caccttccca gttgtgcagg ttgcacacaa 660
actggtatgt tccctctgat aacttttctt cagagggaga atagagtgag caacagggcc 720
gttttttttt tgttttttgt ttttttttta acgatgtctc actcttgtcc cccaggctgg 780
agtgcaatgg tgcaatctcg gctcactgca acctccacct cccgggttca agcgattctc 840
ctgcctcagc ctccaagta gctgggatta cagttgcata ccaccatgcc tagctaattt 900

tttatatattt aaatagagac ggagtttcac catgttggcc aggctggtct tgaactccta 960
acctcagggtg atctgccggc cttggcctcc caaagtgtctg ggattacagg tgtgagccac 1020
cgtgccccgac ctaggggccac tttttgcaat tggcacaaaag gtggcataag ggctggcctg 1080
gccctgcttt cacatctctc tcttcttctg ccactcaca cattcctcat tcagttcttt 1140
gggtgcttgg tgcttcactt gcttatacac gtgatatcgc ctttgcccgg ggcagacact 1200
gaggctcaga gaggtgcaga gtaaccagg gagctaataa gtggtagagg aggggcgtgc 1260
cccagagttc ttgttctcac ccatttccct acccactccc tggcatgcag atcctggtgt 1320
tcctccctcc tggcttagaa tgaccttggg cagtcaaaag gggttgtaac agccccacc 1380
tccttagagt acatgagatt tcatgtgcta gactgaataa acaaggagga agtgtgactg 1440
catcagggtg ggcaaggggg aacgtggtgg gatgagctcg gagcagtgat ggggcagagt 1500
aagcggagcc cttatgggcc atggtatgtg agctggctcc tcgggagggc tctaagcaga 1560
ggagggactc ggggtgtccc agggcccatc tggctgcatg ggggtggggg acatcaatga 1620
ggggactgga agcagggaga ctctggaaga gacaaggtg gacaaaacag ggtgggggca 1680
aaggagtgg aggtttagg gagagaacag gcaggctctc ggtctttttt ttttttttt 1740
ttgagacaga gtcctgctct gtcaccagg ctggagtga gtggtgcagt cttggcctct 1800
acctccctgg ttcaagcgat tctccagcct ctgcctccc agtagctggg attacaggca 1860
tgcaccacca cacaccagc taattttttg tatttttagt agagacaggg ttttactgtg 1920
ctggccaggc tagtctcgaa ctctggact caagtatca gccgcctcg gcctcccgaa 1980
gttctgggat tacaggcatg agccactgca ccaggccgtg ttaatgatat taatgaccat 2040
attgcccttg ggggtgaggg agagccaggc agctggtggt ggtgtttgtg ggagggggac 2100
tgtccttctt gcccttacc cctccagggg cctgaggaga ccctggccac ccctgtgagc 2160
cttttttctt cccaccgagg gcaacctgat ggtgccagt ttcattggct gccccccagg 2220
caagcgctg gccttcgaca tcacctacac gctggaatac agccgcctga agaacaaca 2280
ctactttgac tgcgttaacg tgaaccggga gatgccctgc tttctcttcc gggacagtgt 2340
gtgtccagtc ctttcccctg cacagttcac tgccctcttg cccccactac tttgtgctct 2400
ccctcccat tcctctccc gcagactacc caccctttt cctgcggcat ctactttcc 2460
cccgtctcgg tcctcagctt ctggggccaa gctaatttct tcttctggtc tcaatccct 2520
ccaacccat agttttctac cccttcttct tgattcaaga tttggtgaca ggagactccg 2580
gcagtttcca gggcaggtaa aggcgtggcc agcttgcagc tagggcaggt ggagggagt 2640

gaaggagatg ggtgcaggac tcgagacccg gaggccagtc tgtgtgcact tctgtccctg 2700
gtagctatgt tctgctggtg gtgggtggcg ggcccacact ggacagcctc aaggactaca 2760
gtgaggacga aatctaccgc ttcaacagcc ccctggacaa gtaatccccg tgggggccca 2820
cgtgtaatcc accttgcttc ccctggagge ctttcccact tccaagccaa gccacctcg 2880
caagccccca cctctgcgtc tcaggccctg cccacagtgg ggctcttagg atctcacagg 2940
caaactcctg cccgccccta acaccatgtc ccctgcaccc acctgtggcc tccctccaca 3000
ctgaccactg aggtcatacc tcccctacac cgccccccaa cccctggctg agatgacctg 3060
ggcctgcaca ggaccaacag ctttatctgg accacgagga ccacaaggac caccaaagac 3120
tcagcctttc acatcatgtc ccacgagagc ccaggcatcg agtggctctg tctggagaat 3180
gccccatgct atgacaatgt tccccaggc atctttgccc ctgaattctt cttcaagggtg 3240
ttggtgagca ataggtgagc cagaggagtg gacacgagca cctactgcaa ctaccagctc 3300
accttcctgc tgcacatcca cgggctgcca ctcagtccca agcgggccct tttcatcatc 3360
atggtgtcag ctagcgtgtt tgtgggcctg gtgatcttct acatcgctt ctgcctcctg 3420
tggcccctcg tggatgaagg ctgcacgatg atccggtgga agataaaca cctcattgcc 3480
tcagaatcct actacaccta cgcctccatt tccggaatct cgagcatgcc gtctctgaga 3540
cattccagga tgggtccat gttcagctcc aggatgacag aggacagggc tgaacccaag 3600
gaagccgtgg agagacagtt gatgacctga gtgtcccacc tgccccagcc cccagttact 3660
gtcacgcctc tcttatgagg cccatcttga agatgcaacc tgtcaccag cccaggcctc 3720
tctttctggt ttgcttgatg tttacttctc gttcagactc aaataaagcc ttttttcag 3779

<210> 1317

<211> 4149

<212> DNA

<213> Homo sapiens

<400> 1317

aaaactcttg accccccgc cagagaagga ggaccctccc gcgccctttc ggagcgtcgg 60
tggcccggct ccggctctgc gctccatcct cccagccagc aggtgcccc agacccccgg 120

ctcctcctcc gccgccgtca cagcctcgtc ctccgcctct ggctcctccg cttcctgttg 180
ccgcgatccg ggccgggagc tgcgggcgcc cgggcgcccc aggcttcccg gtgcgctccg 240
ccaggatggc attagctctg tgtctgcagg tgctgtgcag cctgtgtggc tggctctcgc 300
tctatatttc tttctgccac ctgaataagc accgaagcta tgagtggagc tgccgcctgg 360
tcaccttcac ccatggagtc ctctctatag gcctctccgc ttatattggc ttcattgatg 420
gcccattggc ttttaccac ccaggtcac ccaatacacc tctccaagtt catgtcctgt 480
gtctcacctt gggctacttc atcttcgact tgggctgggt cgtctacttt cagtctgagg 540
gtgccttgat actggctcat cacacattga gtatcttggg cattatcatg gcccttgtgc 600
ttggggagtc tggcacagag gtcaatgcag tcctctttgg aagtgcctt accaacccct 660
tgctacagat gcgctggttt ctccgggaaa cagggcacta tcacagtttc actggagatg 720
tagtggactt cctctttgtg gctctgttca caggagttag gattggtgtg ggagcttgcc 780
tccttttctg tgaaatggtc tccccacgc ctaagtggtt tgtgaaggct gggggagtag 840
cgatgtatgc tgtgtcttgg tgtttcatgt ttagcatctg gcgctttgca tggaggaaga 900
gcatcaagaa gtacatgct tggagaagca ggcgagtg ggaacggcag ctgaaacaca 960
acggacatct caaaatacac tagccaaggc ttgctccaga ttatggattg ggttaagtca 1020
gccatgggaa ccaggttggg aatatgactg ttacataatt acacttataa caaacttagg 1080
tttcaataaa gggctaaatg tattgatcaa tttggtcagt cttcaagccg agcatatacc 1140
agtattaaaa cactaacttc tacagtagca cagttgtaga aagtgagaat actccatggt 1200
agttgggaat aagtgagaac tgtgaagtga gtacaactgg catttgtttt catttggtgt 1260
gaccctgggt cctcctgtcc ctgggaggtt tgatgttcag gcagtttaga aaggaactcg 1320
aaaaagatta gtgctatttc ttgttccttt gagaagtaac tctttcaata aacacttatt 1380
tctgctttcc atatagcaat ttatctaagt ttacccatt tactataaag tgaggggctt 1440
acaggaagag acacgccttt gacattctga acattagatc ggggaattgg gtcgcttaaa 1500
cagaggggca taggaggggt agagtgaac tggcagttag ggggagggct acttactgaa 1560
cctcctatac caactgtgcc agagggtgcc aagaccactg ccaggttctg taattctctg 1620
ggaagactca gtggactcag catatagtct tacttatagt ttgtatttat tatagtgaaa 1680
agatacaaag aaaaatcggt aaaaggaaaa ggcacctgag acaaagtcta gggtaaagca 1740
agcacaagtt tccagagtcc tctcccaatg gaatcacaca ggatgcactt aattccccta 1800
gcagtgattt gttacgacat gtgaatgagt tgtctactgg acaaggtcac tacagacca 1860

gtgccccaaag tttttactga ggacaggtca tctaggcagg ctttccctgg cagatagcaa 1920
aattcaagac tctcaaaagg aaagcaggtg ttcagcataa gccatattgt ttgcacaagc 1980
agttcagaca cagtaagcca gtcttatcag ttaattgtgg gagcccctcc aaaatctaag 2040
ttcccaaagt cgggccagtg gccaacctg taatcaggcc tctccaagga tagcagttta 2100
ggcctgctat gttaactctt ttctgcacaa aacctataga gttagggctt tggatctgag 2160
atgaatgaag tgtgggtaga ttactgagt cctgttatat gggttctgcc ctaccaggaa 2220
aactatgcca gttctcaggg cttttgtgca ttaatctcct aggcatattga ggctatgact 2280
aaattccata gggatttatc atgtggattc cactgtgctt gagatggcag tttagatttc 2340
agctctgctg tacatattgc aaactagagc caaagacttt aaagtgtgta ctggcctcag 2400
ggggatgagg ttaatttttt tttttcattt tagatacttt cccttttagt actcctccta 2460
cttttcttat ttttactaaa aaggtaccac tctatgaaca aactaataaa acaaggccag 2520
tcttggaagg aaaaaataa taattcttag tgtgacagtc tccaagagaa gcaagaatat 2580
aagcttagaa caaggggtta agaatccaga attcctgggt tcttttaact aattttgcta 2640
ctcacttgcc actttggaga gctactcact cactttggat aggttacttg tttcttcttt 2700
gcctgagttt aaacctattg tgaatgaatg aaataccctg tagtatattt cataaataca 2760
ttatgtggca ttttattaat ggaggtcttt aatgtagggc ttttatggaa atatgaagta 2820
tttatgtatt tattgattat ttatttttac catgttattg aagtcaatgg tgtttgatta 2880
gctcagtggg tgagcaagca tatggtgcta ctggagtcaa ggctggtcag taggaagcat 2940
cagtccattc cacggccact ggtaatctaa cgtaatgaat ggtgtctttt gttgttgttg 3000
ttgttgttgt tgttgtttga gacagagtct tgctctgtcg cccaggctgg agtgcagtgg 3060
tgtgatctca actcactgca acctccgcct tctgtgttca agtgattctc ctgcctcagc 3120
ctcccagta gctgggacta caggcgtgtg ccacatgcc tggctacttt ttgtattttt 3180
agtagagacg gggtttcacc atgttggcca ggctggctct gaactcctga cttcatgacc 3240
cacccgcctc ggcctcccaa agtgctggga ttacaggtgt gagccaccgt gccagccat 3300
gagcggctctt gaaaatggaa aatggtcttg gccacagaaa ccaggtatga gggagtgggt 3360
ggaatggat aaagtcatca ctgttaagga aacagtaact ttaaatgcat gttaacagtg 3420
ggtcttttaa aatgaatgtc atttggttaa agagttttgc tgggcattga gataatctga 3480
cagcatctcc acttctgtt tttttctta atctccactt ttttttttt tctatgatga 3540
gcgcccctaa aatgctggta agcttctttc caacaaaatt gcggtcaaag taggatgctg 3600

gggaatgctg attttagcaa aagctttagtag aaaagagtgg cctggcacat gagcttaaaa 3660
 aaaagaaaaa aagctggctc ttgaattttg gcacagtgcac acctgttcca taccagacaa 3720
 atgaacaggc ttaatctggt accaattctt tttctctctt actcctcaga agtgaaggga 3780
 ctgcagatct tgttgTTTTG gggacacttt catggaactg tatgtaggtt tttttgaatg 3840
 gtgagaaatc tgaataattg gtaaggggaa gggaatccct catttcagct tttcttgatg 3900
 ttgttactaa taactatgaa aaaacttctg agagaacaat gtgaactgaa gatgactcag 3960
 cagttaagac aatgctaagt tctgaaacca caggtaaagt aagggctaataaatgtgtgg 4020
 tatacttgga caaatgaag tactcatttg cactggatta ctgtgtaatg ataacgaaca 4080
 ctgttcaaga acgatttata tttccataag atttgtacta aattttataa aagtaaaaca 4140
 actttttat 4149

<210> 1318

<211> 3816

<212> DNA

<213> Homo sapiens

<400> 1318

aactgtgctg aagccacacg tgggggacag gcaacgtgcc catgccctct gctggacttg 60
 gcactgtgtg cgtgacaccc agctcccctc ggtgcagcct ggcaaatacca tctaccctgg 120
 tgtctgaagt ttgccatgg tctttggcca ggggctgtgg aagggcctcc ggggactgaa 180
 ggtcgggacc catttggggt cattgagagt aaatcgactt gttaatgggg catcctcctc 240
 aaccactcc tcagggcccc acatccacgc tcaccaactg cacatgcaga cccaggaggt 300
 gcatgagctg aagtctgtgg gccgcagagc cgtgggctcg gaagaagcac agcccaccat 360
 gccgtggatc tccacgcgtg gctcctctcc acgcctgtgg gttgctccaa agctgcagcg 420
 tcacgcgcag atgccaggta gccgtgatgg aggctcgggc acaagctgta ttgcaacggc 480
 tttgtgagta agacagcggt ttgtcttagc tgtatctcgt tagggagttc catcccagtc 540
 atattaaaag caccatgccg catggcacag agtgacaaca aattccttca agataaagga 600
 accctaaaac tgtaagaact cgaaggctctc gtctgcgatg cagtttgtct ggggcagggg 660

agggatctgc ccggtgtggc tctggccgca ggcaggaagc tccctggagc ccattcactc 720
ccagccccca tcctgcaccc ccacgtccca ctctgtgact tgcctgatta aagcgtcagg 780
gaattaaagg gggaattgga gggcagctgc agctacacat gaaatgaaca aggatgcgct 840
tttcctgggtg aacgatgctt gctgggtgcc ctgtccccta aggacatctg agtcagagcc 900
agacaaatgg gagaaatttg tctggggatt aggagacctt tgatgcctca tccctgtgga 960
actacatgga gctcattctg caaatcacct tctcctgcct cctctgaggt gacttaagac 1020
tccgttctct tctgacctgt gcttcatggg ccttccgtgg agccccaggc cgctggctgc 1080
ctgggggtgac catgtccact tgtgtcaacc aacacgtgag cctgagaggc tggagctcag 1140
aatacacctt ggggcacggg gacaagtcct gggcagtggc gggagctctg tttgtcattt 1200
tccttcactt cactcagaca cacttcagca agtgtgtctg agccaacata gaaagatgga 1260
gcagcaattc agaagcatct ctctgaaga cagaaggcca gtgcccagct tcctgtcact 1320
cactcgagag cattgggcac ctgctggggg ctgcatgagc tgccagtgag cagacaggca 1380
acgtcccagt gctccaggga tgcgtgttct atctgggcag agacaacagc aaccagcaga 1440
caagaaacgc cgcagagtgc tgtgtgctgg gtgccgggcg acgctcaggg cggccgtgcg 1500
ggcatccgtg tcagagtgtg gtgtgccggg cgaagctcag ggcggccctg cgggcatccg 1560
tgtcagagtgt ctgtgtgccg ggcgatgctc agggcgggccg tgcgggcatc catgtcagag 1620
tgctgtgtgc cgggcgggagc tcaggggcggc cctgcgggca tccatgtcag agtgctgtgt 1680
gccgggcatg gctcaggggc gccgtgcggg catccatgtc agagtgtgtgt gtgccgggcg 1740
acagtcaggg cagccgtgcg ggcattccgtg tcagagtgtgt gtgtgccggg cgacgctcag 1800
ggcggccgtg cgggcatcca tgtcagagtgt ctgtgtgccg ggcggagctc agggcgggcc 1860
tgcgggcatc tgtgtcagag tgctgtgtgc cggacgaagc tcagggcggc cctgcgggca 1920
tccatgtcag agtgctgtgt gccgggcgga gctcaggggc gccctgcggg catctgtgtc 1980
agagtgtgtgt gtgccgggcg acgctcaggg cggccgtgcg ggcattccatg tcagagtgtgt 2040
gtgtgccggg cgacgctcag ggcggccgtg cgggcatctg tgtcagagtgt ctgtgtgccg 2100
gacgaagctc agggcgggccc tgcgggcatc cgtgtcagag tgctgtgtgc cgggcgatgc 2160
tcagggcggc tgtgcgggca tctgtgtcag agtgctgtgt gccgggcatc gctcaggggc 2220
gccctgcggg catccatgtc agagtgtgtgt gtgccgggcg atgctcaggg cggccctgcg 2280
ggcatccatg tcagagtgtgt gtgtgccggg cgacgctcag ggcggccctg cgggcatcca 2340
tgtcagagtgt ctgtgtgcca ggcgatgctc agggcgggccg tgcgggcatc catgtcagag 2400

tgctgtgtgc cgggcggagc tcagggcggc cgtctgggca tccgtgttag cgttctgtgt 2460
gccaggcgat gctcaggcg gccctgcggg catctgtgtc agagtgtgt gtgccgggcg 2520
atgtcaggg cagccgtgca ggcatccatg tcagagtgt gtgtgccggg cgacagtcag 2580
ggcagccgtg cgggcatccg tgtcagagt ctgtgtgccg ggcatgtc agggcagccg 2640
tgcaggcatc catgtcagag tgctgtgtgc cgggcgacag tcagggcagc cgtgcgggca 2700
tccgtgtcag agtgctgtgt gccgggcgat gctcagggca gccgtgcagg catccatgtc 2760
agagtgtgt gtgccgggcg acagtcaggg cagccgtgcg ggcatccgtg tcagagtgt 2820
gtgtgccggg cgacgtcag ggcaaccgtg cgggcatccg tgtcagagt ctgtgtgccg 2880
ggcgacgtc agggcgccg tgcgggcac catgtcagag tgctgtgtgc cgggcgacgc 2940
tcagggcggc cgtgcaggca tccatgtcag agtgctgtgt gccgggcgac agtcagggca 3000
gccgtgcggg catccgtgtc agagtgtgt gtgccgggcg atgtcaggg cggctgtgcg 3060
ggcatctgt tcagagtgt gtgtgccggg cgacgtcag ggcgccgtc tgggcatccg 3120
tgtcagagt ctgtgtgccg ggcgactctc agggcgccg tgtgggcac cgtgtcagcg 3180
ttctgtgtgc cgggcgactc tcagggcagc cgtgcgggca tccgtgtcag agtgctgtgt 3240
gccgggcgac agtcagggca gccgtgcggg catccgtgtc agagtgtgt gtgccgggcg 3300
actctcaggg cggccgtgtg ggcatccgtg tcagagtgt gtgtgccggg caacgtcag 3360
ggcgccgtg tgggcatccg tgtcagagt ctgtgtgccg ggcgacgtc agggcggtc 3420
tgtgagcatc cgtgtcaggt gggctgtctg atgtggggg gtcactgact caccctagg 3480
gctgagggcg ggtgggttac tggcctccac atgggtgtga caacctggca gtgagggatg 3540
gtcatgcaga catgtgttg gcatggagca tccgtggtg tggaagccct cccatgccg 3600
gccgcggggc agggctctg gagaggacgc aggatccctc cctgcatgtc tgtctgcaga 3660
tcagcttcac ctgccccac cctggcagtt caatctactg tcattagacc cacctgcct 3720
caccctggc tgcaccctc aatctactgt tattagacc acggggcttc ttggtgatta 3780
aacgtgtgt ttgtctctg cacatccaag aactgc 3816

<210> 1319

<211> 3823

<212> DNA

<213> Homo sapiens

<400> 1319

agcagcgc	ccc	cactcaaca	agcttcccc	gggcccctg	ccatgactca	ccgctgggtg	60
gggcgggc	cac	gcaggcaacc	cgcgggccga	gacggggtag	tgagggccgg	aagcccggct	120
cccgactcc	g	cttcgtcccc	acaacctccg	gccgcctgaa	gtcctgaggg	gccgtggccc	180
tgggtcgtct		cccctgttcc	cagcctccag	tcgcagctgg	cggagagaag	ttcccagggc	240
ccccccgact		tgcaagggtcc	cttgccccgc	ccagagctga	gccttccgag	gatctgagga	300
ccgagtccag		cccagctccc	aggagggggc	gggatcctgg	ggcagggaat	aaggggcagg	360
ggctggctct		aaagtcgggc	gggagagggg	cactaaccga	gatgggggct	gagcctccgg	420
tctgggagct		tcgggaggcg	cgtggcgggga	tggaaaacat	tcctgagacc	gttggtattg	480
atttccgaat		ttgggaggct	aggactccgg	ctacggtggc	tctgctcttg	ggatgagagg	540
actgggccc	a	gcttgcgagg	aatcatgaag	tggacacagg	gtgggaacgt	gaattttaat	600
gagggggcag		accgaggagg	tggtggctgc	ccggagatca	gggccaggct	gtgctagatg	660
gcgcctggaa		gggggggtcac	ccaagtctcc	ctgctgtcat	ttcaggaggc	cgaccaagt	720
ctccctgctg		tcatttcagg	aggccgaatt	ttttcccaat	cccagagaag	gtgtcagagg	780
cctggttagc		agtcttgtcg	atggtttcct	gggtggctct	ggccagctgg	tccatggctg	840
gggaaggggc	g	ggagagaggg	caggtcaggc	agggcccggg	aaccacagtg	cctgtaggct	900
tagcctggcc		tgggtctccc	gggggacctg	cttggggcat	tgtggacaga	gggctctgca	960
gaggagagga		tgtgcctggg	ccccagccgg	gatggggcgg	ggagtgggag	gtgtgctggg	1020
gttggccgcc		tccctccagc	cccaccagac	ctttctgccc	cgcctctgtg	gcctgggtcca	1080
ccacttgctg		agctgccgct	ccggccgctg	acactggaac	agagagatgt	ggcttttagc	1140
ccctgttgag		gcaccaccga	ctacagggtc	cccaccattg	ccatgcctct	gtgtcctcca	1200
gagtattcgg		tggtacaggt	ccaagggatg	gatgccatgg	agataaagtc	cctggcccag	1260
ggccccccag		cccgaggggc	aggagacctt	tccatgcctc	tgggatgttt	ttgtttattt	1320
ctaactctga		gctccttctc	tgtgggggag	gagcttccct	ttccatctcc	agggtacttg	1380
agaaaatgtt		ggacagagga	aggaaggcag	ggcagggcc	ggctgcagct	agcatctgga	1440
ctgttggtga		atgctgggtg	tggcgcagaa	gacccttgcc	cccttttaca	gcttctcccc	1500
tagaagcctg		gcccagatgc	ctgaattccc	acctttcatg	cacttagccc	tggggcttgc	1560

agttttgccg ggtccttact gcctcctccc tcctgtggcc tgcccggagg ggcacacaag 1620
caaagccagt gcctctgtgg acaggcagct taagacatta ggagacaaat gaaggaagga 1680
ggcaaaaactt ccaaggccgg actatctcct ctggaccaga gtttcggcct gctgggaatg 1740
gagtcaccag ccccgggggg gctgacaggt ggctcccgcc tacagagctg taactcatcc 1800
ctgctgctga acaggaaagg gcctgcctta cccagatccc atcctccgga aaggctctca 1860
gatggaaaag tgaagcccag aaggaaggga cctgacacgg aggcttcctt ggtagcattt 1920
cagtctcaag ggaagaactg tgggcctccc ctggagcact ggtgaagtaa ggggttggtt 1980
tggatatgtt ctctgactg ggatatgggc aggactgaca gggagctgga gtcctaacga 2040
agcctgggct aggtgcagga agaaccaacc cagtggcttc ctgacatctc ccacgcccc 2100
accgcagctg ggtcacctcc agaatacgga ggagagagct ggaggtggag gaactaagga 2160
ccttctttgc caggtgggga cttaaaggta aggcgacgat tacttttcgg cgatgggggt 2220
gggatggaaa caaagccctt tgaggtctgg ggcagcctct ggtggcgcg cggggtttaa 2280
gtggtggcgg gccgcgccc atccctgtcc tggacctca ccctctcctg agggcctggg 2340
cgggccgccc agcgcagca tggcctcctt ggaggggctc ccgcagtgcc cgcagcgag 2400
ctccggctcc tccggagcct ctgttccgct gcctccctgc gggcaccatc tgtctgctcg 2460
ccgggggtggg cgttctgcct gccccctgcg tctcagtgga ggaccgagcc ttccgagcca 2520
agctgccggt ccaggaactt gcggaccgag ccgaccgct gcttctgcct gcgcattcac 2580
gcaggtgccc ctgcctgagc cctaggtcgc gcgctatcct caccggcttc ctgggcggtc 2640
ccctccacct gttgcttcag gtctgcaag cccttgcttg ccatggcttc ggggtatctg 2700
tggagtcgtc aagagcagct ggagcgacgt tggatcctgc ccagagtggc gatgccaagc 2760
gccagctccg gtttttaagg cgccccaggg ctggcctgcc ccgcgtaggg gagagggcg 2820
ggggcggttc ccgtcataca ggctccgggg agtggccggg ccctgctcca gagtccgcag 2880
ggcagggagc acatcctggc ctaagacggg ccgcggtggg aaaggggcag accgaaccag 2940
ggaccgaaga ggtgccagga caggggtcca gagaggagct ggaggcagga gaagggcgca 3000
caccacctcc cagctcatca gccccagccc tccctttctg atcctgggag tgagcgctgg 3060
gtcagctcca gggcaggagc tcagggtgg tgttgacctt aatgacagca gtggtctttt 3120
actgagcatt tgtcttgtgc caggtgctgc ctaacgctct gcagtctctt gtataatctt 3180
tacaaccacc tcctgaagtg ggtatTTTTT ttgatagcat cagtgtatag gaggaactg 3240
aggcagtgag gtcggtctca cccaaacgca tgtggcaggg acttgatcc tcgaatctgc 3300

ctaggtgcct gtaaacccta gggctctggc atcatcggag cccccagccc caaacagctg 3360
 caggggcact gctgactggc tctctgcctg tagccagaga ccagtgat gcagccggag 3420
 agggcctggt aaatctttcc cctgagaggg cgagatacag catacagtga agttgttctc 3480
 tgaagttcct catctgcctt aagtctggac ccaccaaaga agaaaacaat gaccactggt 3540
 cccttcccgg agttttctct gactgaactg ctgtcacagg aagaaagact gaagcctgct 3600
 cacatacctg gacagatttt gcaaaccgtt gtctgctctg tgagcccaac agactttgtc 3660
 ccaggccact gtatgttctt caagcccact gaattcccct gaaaatcatt tactagcccc 3720
 ctgaaattac tcacacttcc ccattgctca tctgtacccc atttcgtggt ggggcagtca 3780
 ctctgatttc cccttgcatt ctaatgaatg tgtattccat ttc 3823

<210> 1320

<211> 3396

<212> DNA

<213> Homo sapiens

<400> 1320

aggcgaggac cctgggagga aatgaaacac cagacccagt gcaggcgagg aggccgggag 60
 gatctgaaac accagacgca gtgcaggcga ggaggccggg aggaaatgaa acaccagacc 120
 cagtgcaggc gaggaggccg ggaggaaatg aaacaccaga ccagtgagc gcgagaaggc 180
 agggaggaaa tgaaacacca gaccagtgac aggcgaggag gccgggagga aatgaaacac 240
 cagacccagt gcaggcgagg aggccgggag gaaatgaaac accagacca gtgcaggcga 300
 ggaggccggg aggaactgaa acaccagacc cagtgcaggc gaggaggccg ggaggaaatg 360
 aaacaccaga ccagtgagc gcgaggaccc tgggaggaaa tgaaacacca gacctagtgc 420
 aggcgaggag gccgggagga tctgaaacac cagacgcagt gcaggcgagg aggccgggag 480
 gaaatgaaac accagacca gtgcaggcga ggaggccggg aggaaatgaa acaccagacc 540
 cagtgcaggc gaggaccctg ggaggaaatg aaacaccaga ccagtgagc gcgaggaggc 600
 cgggaggatc tgaaacacca gacgcagtgc aggcgaggag gccgggagga tctgaaacac 660
 cagacgcagt gcaggcgagg aggccgggag gaaatgaaac accagacca gtgcaggcga 720

ggaggcaggg aggaaatgaa acaccagacc cagtgcaggc gaggaggccg ggaggatctg 780
aaacaccaga cgcagtgcag gcgaggaggc cgggaggaaa tgaaagacca gaccagtg 840
aggcgaggag gctgggagga aatgaaacac cagctttgtg aaatttctgg atttggtgag 900
aagcctctgg tgtctgggta gtctttaaac aagtgtgac ttcggctttg cctgcactgg 960
tcagttagac tttcttggtt atgtggctta caaccgggaa gtggcctagg gtttcttgaa 1020
gttgactcat atgtacagca aattcaataa tccattttct gaaattaaat gtctgtccag 1080
tttagactca atttaaggaa aggaatagat ttggcaatac acgtaggtag gttgatcata 1140
tgcgatgtga acttggggat cagcttgctg cttagagatt tccttagtga ttcctcatcg 1200
ataaaatgaa ctgttacatt taagatgctg ataaagtaaa ttttttttg aacaaggcag 1260
acacagatgc aattacacag aaacattgcc ataaatgtgc atgactgaag gggtttagagg 1320
agttatctgt atgggagaag gcagtctgga tgccaaaaat cccagcaggc tgtggaagta 1380
ggagggaaac tcatgaggag ttagcaaggg aagcctcaga gacaagaggc tgtttgaagt 1440
tggtcatcga gaacagatag caatttgact acaatgaaat aagaaactgt agatattgtt 1500
ttagcacttg gtttcatggg cacatgacag ctttttattt tttctgataa atgtgcaggt 1560
ttcctgtata tttttaatgt ctccagttct tttacttct ttagcaaatg acattttacc 1620
ttgtatctta gtccattaag gctgctacag cagaatcaca cagcctgggt ggattctaaa 1680
ccacagagac ctgtctcaca gctccggagg ctggaagtct gagaccaagg tgcttgccga 1740
tgcggtgtct gcagggccct cttcccttcc agaagacacc atctggctgt gtcttcacct 1800
ggggaaaggg gcagggcagc tctcggggcc tcttctatgg gagaactcat cctattcagg 1860
agggtttcac cctcatgcct tcccaaagac caactgattt cagttttccc aaatgatttc 1920
aacgtttcag atttgagggg acagacattc agtctactgc accttgcat tggggactct 1980
gtgtccataa agactccaaa ttgtccaaac tgaatttaac aatcaggtaa tgatcatcag 2040
aataactcca gctagtcttg accctgaagg gaagagatat tatttgttca aagtcacatt 2100
tctttactct cctttcctaa cgtaatctac tatttaaaaca gaattataac attacatatt 2160
aagtctatcc tagtgggagg ataatgacgc ttattgaggt gtggccatta cattttaaaa 2220
tacttatcac tttaataagct tacattgaaa agacaagtaa gtattttttt tcagggtgtac 2280
tgatgaatta aaaaacagtg aaaaaagca aatatctgct gtgcatcaac catgggacat 2340
tgttttaggg ccctagagag gatgggggtg caaacaggat cagggcatca tcctgaccag 2400
gcaaagagct cagcatcaat ggggcaaata tctatctaca agagttcttg cgatctacgg 2460

aaaatggcag taaggatgtg attagcaaaa ccaaagtacc aaggaagaag aataaaggga 2520
 ggaactcagt ataagcagat acgccacatg gagaatgagc catctgacct gacatttcag 2580
 gaggtgacat caccaggtgg aaaagaaaga tgtatgtccc tagatgcaaa agctcaagag 2640
 agccttgctg gtgactaaga ccctgggtgc cgaggcttga gaagagcagt gtctggatct 2700
 ggtctgagaa ttgcaaacag tgtgtgtgtg cctacagatg aggtcccgaa gctttgatct 2760
 ctgtgaattc ctttttatcc cactctactt ggaacaacaa tacaatatca atcttctctc 2820
 gctgcccctg ggtgtgcttc tcccagccaa caaccttcca gagattgcca ccaattacag 2880
 gaaaaaaatc cgtactactc cagcaggaat ttaaagcctc cttctttctc tgteccccac 2940
 ctctgtggtc tgccttccac tctctccag tagagggtgtg ctggatccac acacgcctcc 3000
 cttatgccta ttacaacatt gctcctgccg ggaaacgttt cccaaattca accccattaa 3060
 agggaggaaa ggcaggaggc tgaggactct acatttatcc acaaagaga aaatggatct 3120
 cttaattaga cagtggcagt tggcaaggat tggcacctgt ttatTTTTga ccaagaagaa 3180
 tcaatcatag gctctagagc agcaggagac ttctgagggtg atctcattga gggactatgt 3240
 ggcatttgaa tcttcttat aaaagagtaa agagaacact gctctactat aattttaacc 3300
 ccctttgagg gaatttggtg ccttgcaagg caatgtatct acttgctata tagttttcta 3360
 atgcaaatca ataaagtac tccactataa acattt 3396

<210> 1321

<211> 3279

<212> DNA

<213> Homo sapiens

<400> 1321

atgattataa gcttctgag gcctccctag aagctgagca gatggcagaa ccatgcttcc 60
 tgtaaactct gcagaatcaa gaaggaactg agtctctaag atggaggata tacaactgac 120
 aagtagtaaa gtcaagatac acagccagac agtgtctcag tctggcatcc aactcaggct 180
 ggagtgcagt gacatgatct tggctcactg cagtcttgac ctctgggct caagcaatcc 240
 tcctgcctca gcttctgag tagattataa ataacttaa tagcagtatt cacgtttgca 300

ttctcgcattc cgtggcatgg agtcctacac acaataggcg ccctaagaaa gcgtgtttga 360
cttgatcgct ggagcatctg ccggcaccgc ccaggacccg cccaggaccc gccccgcccc 420
ctgcggcccc gcccccgca tgctgaatgc catataggcg agtgacgtca ggccgtttgt 480
tgtcattggc ggctcccaag atggcgctca tcatggaagg gccgctgagc aaatggacta 540
acgtgatgaa aggctggcag taccgttggg tcgtgctgga ctacaatgca ggactgctct 600
cctactacac gtccaaggac aaaatgatga gaggctctcg cagaggatgt gttagactca 660
gaggagctgt gattgggtata gacgatgagg acgacagcac cttcacaata actgttgatc 720
agaaaacctt ccatttccag gcccgatgatg ctgatgagcg agagaagtgg atccatgcct 780
tagaagaaac aattcttcga catactctcc agcttcaagg tttggattca ggatttgttc 840
ctagtgtcca agattttgat aagaaactta cagaagctga tgcttaccta caaatcttga 900
ttgaacaatt aaagcttttt gatgacaagc ttcaaaactg caaagaagat gaacagagaa 960
agaaaattga aactctcaaa gagacaacaa atagcatggg agaatcaatt aaacactgca 1020
ttgtgttgct gcagattgcc aaaagtacta ttaatcccg agatgcaata tatcaacct 1080
gtcctttgga acctgtgatc agcacaatgc cttcccagac tgtgttacct ccagaacctg 1140
ttcagttgtg taagtcagag cagcgtccat cttccctacc agttggacct gtgttggtta 1200
ccttgggaca tcatcagact cctacaccaa atagtacagg cagtggccat tcaccaccga 1260
gtagcagtct cacttctcca agccacgtga acttgtctcc aaatacagtc ccagagttct 1320
cttactccag cagtgaagat gaattttatg atgctgatga attccatcaa agtggctcat 1380
cccaaagcg cttaatagat tcttctggat ctgcctcagt cctgacacac agcagctcgg 1440
gaaatagtct aaaacgcca gataccacag aatcacttaa ttcttccttg tccaatggaa 1500
caagtgatgc tgacctgttt gattcacatg atgacagaga tgatgatgcg gaggcagggt 1560
ctgtggagga gcacaagagc gttatcatgc atctcttgtc gcaggttaga cttggaatgg 1620
atcttactaa ggtagttctt ccaacgttta ttcttgaaag aagatctctt ttagaaatgt 1680
atgcagactt ttttgcacat ccggacctgt ttgtgagcat tagtgaccag aaggatccca 1740
aggatcgaat gggttcagggt gtgaaatggg acctctcagc ctttcatgcg ggaaggaaag 1800
gatcagttgc caaaaagcca tacaatccca ttttgggcga gatttttcag tgtcattgga 1860
cattaccaa tgatactgaa gagaacacag aactagtctc agaaggacca gttccctggg 1920
tttccaaaaa cagtgtaca tttgtggctg agcaggtttc ccatcatcca cccatttcag 1980
ccttttatgc tgagtgtttt aacaagaaga tacaattcaa tgctcatatc tggaccaa 2040

caaaattcct tgggatgtca attgggggtgc acaacatagg gcagggtgt gtctcatgtc 2100
tagactatga tgaacattac attctcacat tccccaatgg ctatggaagg tctatcctca 2160
cagtgccctg ggtggaatta ggaggagaat gcaatattaa ttgttccaaa acaggctata 2220
gtgcaaatat catcttcac actaaaccct tctatggggg caagaagcac agaattactg 2280
ccgagatttt ttctccaaat gacaagaagt ctttttgctc aattgaaggg gaatggaatg 2340
gtgtgatgta tgcaaaatat gcaacagggg aaaatacagt cttttagat accaagaagt 2400
tgcctataat caagaagaaa gtgaggaagt tggaagatca gaacgagtat gaatcccgca 2460
gcctttggaa ggatgtcact ttcaacttaa aaatcagaga cattgatgca gcaactgaag 2520
caaagcacag gcttgaagaa agacaaagag cagaagcccg agaaaggaag gagaaggaaa 2580
ttcagtggga gacaaggtta tttcatgaag atggagaatg ctgggtttat gatgaaccat 2640
tactgaaacg tcttggtgct gccaaagcatt aggttgggaag atgcaaagtt tatacctgat 2700
gatcagggca gtaggcataa ttcagcaaca aacaatcttc ctttgggaga aacctgttca 2760
ttccaatctt ctaattacag tggttcttat ctcagggata ctggactttc tgacgcagat 2820
gaacaattaa ggggaaaagc ttcccttttc cctctgtggc agttacgatt ttgacttcag 2880
tcctgagaaa aacttcaggt tttgaaaatc agatgatgtc ttctcctttt ccaaacacca 2940
cacgttgaaa gcatttataa atccaagtct gaaactctgc gctctagtac tgctgttaag 3000
atacacaact tgtttcttag ttcataataat ctcgggatac acacacacac acacatatat 3060
atacacacac atacgtatac acacacatac atatatataa atatacctga tgccagattt 3120
ttttcataaa tattctgcct actgtaaata tgggttcctc tgagttgttt tagaaaatta 3180
gcgcaatgta ttaaaatcaa gtgttaggaa atttcatggt cttacctaca ataactttta 3240
ttttggaatt gaactattat taaattgtat ctaatcctg 3279

<210> 1322

<211> 4554

<212> DNA

<213> Homo sapiens

<400> 1322

agatgcgacg aggttagcgg ggcccgacca ctccttggct tcccaggggt gagcctcgcg 60
agttaggagt tgggtagaga gtcagcccgg ggcccggcat ccgctttttc gttgaagcaa 120
cgactttggc cggatgactc cccagggtcg gcatcagcgt gggactggga acaggtgaag 180
ggaaacagaa gagagcctga gaagaccgct ctcctccgat cctaattgac tgagccaatg 240
agagccaaag aggtcacatg ctcaactggg cggggagcgg gtttccacct gcggcatctt 300
tcgcgagcgg ggagatgagt ggggcggaat atgggagaaa gggagggccc gccacgtctt 360
ggctggacac ggccttaatc ggcccgttca ctcgacgttt ttggttctac gttgaccccg 420
agaaaccgaa accgcagggc ctagggcggg tggaacgaga gggaactaca tttcccagca 480
ggctgcggaa acgggactgc ggccactact tccggcgtgt accgagagac tgacgtccgg 540
cgtgtaccga gagactggcg tccggtgtgc aggtggccac atggatcctg gcagccgggtg 600
gcggaacctg cccagcgggc ctagcctaaa gcacttgact gaccctctt atggaatccc 660
gcgggaacag caaaaggcag cgttgcagga gctgacgcgg gcgcacgtgg agtccttcaa 720
ctacgtgtg cacgagggtc tcggcctcgc ggtgcaggct atacctcct ttgaatttgc 780
tttcaaagat gagcgtatct cttttactat tctggatgct gttatcagtc cacctacagt 840
tccaaaaggg accatctgca aagaggccaa tgtttatcca gcagaatgcc ggggccgaag 900
gagtacctac cgtgggaagt tgacagctga tatcaactgg gcagtgaatg gaatctcaaa 960
aggaatcatt aagcagtttc ttggctatgt tcccatcatg gtgaaatcca agctttgcaa 1020
cttacgtaac cttccccac aagccctcat tgagcaccat gaggaggcag aggaaatggg 1080
gggctatttt ataataatg gcattgaaaa agtcatccga atgttgatta tgcctcggag 1140
aaattttccc attgcaatga taagaccaaa atggaaaacc agagggcctg gttatactca 1200
gatatggagt tcaatgcact gtgtgaggga agaacattcc gctgtcaata tgaacctcca 1260
ctacttgga aatggcaccg ttatgttgaa ctttatttac cgaaaagaac tgttctttct 1320
tcctttggga tttgactta aggcacttgt cagcttttct gattatcaga tctttcagga 1380
gctcatcaaa ggaaaagagg atgattcttt ccttaggaac tctgtttctc agatgttaag 1440
gattgtaatg gaagagggtt gttcgacaca aaaacaggtc cttactacc taggtgaatg 1500
cttcagagta aaactcaatg ttctgactg gtacccaaat gagcaagctg cggagttcct 1560
gtttaaccag tgcattctgta tccacttgaa atccaatact gaaaagtttt atatgctttg 1620
tctcatgacg cgaaagctct ttgcttttagc caaaggagag tgcattggagg acaatcctga 1680
tagtttggtg aaccaggaag tcctcacacc gggtcagctc ttccttatgt tcctgaagga 1740

aaaactggaa ggttggttag tgtctattaa aatagctttt gataagaagg ctcagaagac 1800
cagtgtttcc atgaacactg acaatttgat gaggattttt acaatgggca tagaccttac 1860
aaaaccattt gaataccttt ttgctactgg gaatctgcgt tctaaaacag gtcttggcct 1920
cctacaagat tctggacttt gtgttgtggc tgacaagctg aacttcatac gctacctctc 1980
ccatttccgc tgcgtgcaca gaggggctga ttttgccaag atgaggacca ccacagtacg 2040
caggctgctg ccagagtcct ggggcttctt ttgtcccgtg cataccccag acggggagcc 2100
ctgtggcctg atgaaccacc taactgccgt atgtgaggtt gtcacacagt ttgtgtatac 2160
ggcatctatt ccagctttac tgtgcaactt ggggggtcact cccattgatg gagctcccca 2220
ccgatcatac agtgagtgc accctgtcct gctggacggt gtcattggtg gctgggtgga 2280
taaggatctt gctccaggca tcgcagattc tcttcgtcat tttaagggtg tgagagagaa 2340
aagaattcct ccctggatgg aagtggctct tatacccatg acaggaaaac caagtctgta 2400
cccaggattg ttccttttta ccactccttg tagactggta cggcctgtgc agaacttagc 2460
attgggcaaa gaagagctaa ttggaactat ggaacagatc ttcattgaatg tcgctatctt 2520
tgaggatgaa gtttttgcgt gagttaccac acaccaggaa ctctttccac acagcctgct 2580
gagtgtgatt gccaacttca tccctttctc tgatcacaac cagagtccac ggaacatgta 2640
ccaatgccag atgggtaagc aaactatggg ctttccactt ctcacttatac aagaccgatc 2700
ggataacaaa ctgtatcgtc ttcagactcc tcagagtccc ttggtgagac cctccatgta 2760
tgattattat gacatggata actatccaat tgggaccaat gccatcgttg ctgtgatttc 2820
ttacactggc tatgatatgg aagatgccat gatttgtgaat aaggcctctt gggaacgagg 2880
ctttgccccat ggaagtgtct acaagtctga gttcatagac ctctctgaaa aaattaaaca 2940
aggagatagt agcctggtgt ttggcatcaa acctgggtggc ccacgcgttc tgcagaagtt 3000
agatgacgat ggattgccgt ttataggagc aaaactgcag tacggagatc cgtattacag 3060
ctacctcaac ctcaacaccg gggaaagttt tgtgatgtac tataagagta aagaaaattg 3120
tgttgtggat aacatcaaag tgtgcagtaa tgacactggg agtggaaaat tcaagtgtgt 3180
ttgcatcact atgagagtgc ctcggaacce aactatcgga gataaatttg ccagtcgccg 3240
tgggcagaag ggcattttta gcagattgtg gccggctgag gacatgcctt ttactgagag 3300
tgggatggtc ccagacattc tgttcaatcc ccatggtttt ccatcccgca tgaccattgg 3360
gatgttaatt gagagtatgg ccgggaagtc tgcagctttg catggtctct gccatgatgc 3420
tacacccttc atcttctcag aggagaactc ggccttagaa tactttggtg agatgttaaa 3480

ggctgctggc tacaatttct atggcaccga gaggttatat agtggcatca gtgggctaga 3540
 actggaagca gacatcttca taggagtggg ttattatcag cgcttacgcc atatggtctc 3600
 agacaaattt caagtaagga caactggagc ccgagacaga gtcaccaacc agcctattgg 3660
 gggaagaaat gtccaggggtg gaatccgttt tggggagatg gaacgggatg cgcttttagc 3720
 tcatggtaca tcttttctcc ttcattgaccg cctcttcaac tgctcagatc ggctcggtagc 3780
 ccatgtgtgt gtgaagtgtg gcagtttact ctctccactg ttggagaagc cacccttctc 3840
 ttggtctgcc atgcgcaaca gaaaatacaa ctgtactctg tgtagtcgca gtgacactat 3900
 cgatactgtt tctgtgcctt atgtttttcg gtattttgta gctgaactgg cagctatgaa 3960
 catcaaagtg aaactggatg ttgtttaact tgatgttgac cttttggatt aagaggacta 4020
 tcagattaaa gcaaaatgta attttaattc aatgaagata tcattaccag gttactcttg 4080
 agatttttca acggtgttag aactctcaac caagacctga aaaccaagta tgcaagggtt 4140
 ctgaatctct ctggtagatt aactattgac gatgattttc tgttatcttt gttcaaaaag 4200
 ttcattgtct ctcaaaatat gaaatattga taaatggaag agcatacggt gacaagtctc 4260
 ctttccaacc ccaggttccc tacacctgc tctcagcagg cagtgaagtgt cacacacctg 4320
 ttaatccatc ttgagcagga cagtactata caaatagaat gcaagctgta atgtaatttt 4380
 atattttctt atagccacgt tgaagtaaaa acaaacaggt acagtgtttt ttaccagctt 4440
 tatagaagta cagttgttac atatttaatg aatacaattt gatgggtctg actatatgca 4500
 cacacctttg ataccatcac cacaatcagg gtaataaaca tacctgtcat ctcc 4554

<210> 1323

<211> 4261

<212> DNA

<213> Homo sapiens

<400> 1323

attccagttt ggaattataa agatgctatg aacattcttt ttcttcaaca tctgttttgt 60
 ggacatctag ttgtattcct gttggataaa tacttatgca aaactgtaca atctaaagtg 120
 gactgcattt tgcaagaagt tgagaagttt acagacctag agaaactcta cctctacctt 180

cagctgcctt ctggtctcag caatggagag aaaagtgatc agaatgccat gtcatttagt 240
cgggcacaac aaatgcatgc cttttcctgg attcggaata ccctagagga acatccggag 300
acttcactgc ccaaacagga agtctatgat gagtacaaga gctattgtga caatcttggg 360
taccatccat taagtgtgctc tgatttttggg aagatcatga aaaacgtctt tccaaacatg 420
aaggcacgtc gtttgggcac aagaggcaaa tctaaatatt gctacagtgg actaagaaaa 480
aaagcttttg ttcatatgcc aacactgccc aaccttgact ttcacaaaac tggagatggg 540
ttggaaggag ctgaaccttc tgggcagctt caaaatattg atgaagaagt tatctcttct 600
gcttgccgtc ttgtgtgtga gtgggcccag aaagtgttaa gcccaaccatt tgacaccgtc 660
ttggaattag cccgcttcct tgtaaaaagt cactatatag gcaccaagtc aatggcagct 720
ctaactgtaa tggcggcagc accagcagga atgaaaggaa ttaccagcc ttctgctttt 780
atactacag ctgaaagtaa ttcctttcag cctcaggtga agactttgcc atctccaatt 840
gatgctaaac agcagttgca acggaaaatc cagaagaagc agcaagaaca gaaactacaa 900
tcccctttgc caggagaatc tgcagcaaaa aagtcagaaa gtgctacaag caatggagtg 960
actaatcttc ctaatggaaa tccttcaatc ctttctcctc aacctattgg tatcgttgtg 1020
gcagctgtcc ctagtcccat tccggtccag cggactaggc aattggtaac ttcaccgagt 1080
ccaatgagtt cttctgacgg caaagttctt cccctcaatg tacaggtggg cactcagcac 1140
atgcagtctg tgaaacaggc accaaagact cccagaacg ttccagccag tcctgggtggg 1200
gatcgttctg cccggcaccg ttaccctcag atcttaccca aaccagcgaa caccagtga 1260
ctcaccattc gctctccaac tactgtctc tttactagta gtcccatcaa aactgctgtt 1320
gtacccgctt cacacatgag ttctctaaat gtggtgaaaa tgacaacaat atccctcaca 1380
cccagcaaca gtaacacccc tcttaaacat tctgcctcag tcagcagtgc tacaggaaca 1440
acagaagaat caaggagtgt tccacagatc aagaatgggt ctgtcgtgtc gcttcagtct 1500
cctgggtcca ggagcagcag tgcgggggga acatctgctg tggaagtcaa agtggaaacc 1560
gaaacatcat cagatgagca tcctgtacag tgccaagaga actctgatga ggctaaagct 1620
ccccagacac ctagtgccct tttggggcag aaaagtaata cagacggagc actgcagaaa 1680
ccttcaaagtg aaggtgtcat tgaaataaaa gcaactaagg tctgtgacca gaggacaaaa 1740
tgtaaaagtc gctgtaatga aatgctgcca ggcacgtcaa caggcaataa tcaaagcact 1800
atcactctat cagttgcttc tcagaactta actttcacca gcagcagctc accaccta 1860
ggtgactcaa tcaataaaga ccctaaatta tgcactaaaa gcccaagaaa acgactgtct 1920

tctacattgc aagagacca ggtgcctcct gtaaagaaac caattgtgga acagctttca 1980
gcagctacca tagaaggga gaaacaaggc agtggttaaga aggacaaaa ggttccacat 2040
tcaggga aaa cagaaggttc aacagcaggt gtcagattc ctagcaaggt atcagtaa at 2100
gtcagttcac acataggagc aaatcaaccc ttgaattcct ctgcccttgt tatcagtgat 2160
tcagctttgg aacagcaa acacccatca tcatctccag atataaaagt aaaacttgaa 2220
ggaagtgtct ttctcttggga cagtgtttca aagtcagttg gcagctttta tccaaatgga 2280
tggcaaaaa tcaactaaaga ttctgagttt atatctgcc gttgtgaaca acagcaagat 2340
atcagtggtta tgacaattcc tgagcactct gatatacaatg acttagagaa atctgtttgg 2400
gaattagaag gaatgccaca ggacacatat agccagcagc tacgtagcca gatacaggaa 2460
tcttctttta atcaaatata agcacattct tcagatcagt tacctctgca atctgaactg 2520
aaggagtttg agccttctgt ttcccagaca aatgaaagct actttccttt tgatgatgaa 2580
cttacacaag atagtattgt ggaagagctg gtgcttatgg agcagcaaat gtcaatgaac 2640
aattctcatt cttacggcaa ctgtttggga atgacccttc agagtcagtc agtaactcca 2700
ggagctccaa tgtcatctca cacttccagc acccacttct atcatccaat ccacagcaat 2760
ggcactccaa tccacacacc cacaccaca cccacacca ctctactcc aacccaacc 2820
ccaacccga catctgaaat gattgttgga tctcagagtc tgtcacggga gagcccttgc 2880
tccaggctag cccagactac acctgtggat agtgcttttag gaagtagccg acatacacc 2940
attggtactc cacattctaa ctgcagcagt agtgctcccc ccagccctgt tgaatgcagg 3000
aatccgtttg cattcactcc aataagctcc agtatggcat atcatgacgc cagcattgtc 3060
tcaagtagtc ctgtgaaacc gatgcaaaga cccatggcca cacaccctga caaaaccaag 3120
cttgaatgga tgaataatgg gtatagtggg gttggtaatt catcagtttc tggccatggt 3180
attctcccaa gctatcagga actagtggaa gaccgtttca ggaaacctca tgcttttgc 3240
gtgcctggac agtcttatca gtctcaatcc agacatcatg acactcattt tggtcgtttg 3300
actcctgtct ctctgtgca gcatcaaggt gccactgtaa ataacaccaa caaacaggag 3360
ggttttgcag tccctgcccc tcttgataat aaaggaacta attcatctgc cagcagcaac 3420
ttcagatgcc ggagtgtgag cctgtctgtt catcgccaac gtaatcttag tggaagcacc 3480
ctctatccag tatctaata cccacaatct aatgtgaccc cttttggaag tccagttacc 3540
ccagaagttc atgttttcac aaatgttcac acagacgcat gtgccaacaa catagctcaa 3600
agaagccaat cagttccatt gacagtcagt atgcagacag ccttccaaa cgctcttcag 3660

aagcaagcaa acagtaaaaa aataaccaat gttttgttga gtaaacttga ttccgacaat 3720
gatgatgcag tgagaggttt gggaatgaac aacctgccct ctaattatac agcccggatg 3780
aatctcactc agattttgga accttccact gtttttccta gtgccaaccc aaaaaatatg 3840
atcgattcca gcacttctgt ttatgagttc caaacaccat cttacctcac caaaagtaat 3900
agcaccggtc agatcaattt ttctcctgga gataatcaag cacaatcaga aattggagag 3960
caacaattag atttcaatag cactgtttaa gacctgttga gtggagacag cttgcaaacc 4020
aaccagcagc tgtgttcttg tccttcctct ctgctggctg gaatgcaat gtgatggcta 4080
gaactcaagc agccctcctg gacttcatgt taaagacaca tgctgaggat gattgagcaa 4140
caagatacaa ggagcccagg gcatgatgac ttggaaggg aagatgccca actagtcctg 4200
actgcttacc tctggatgtg ttttacctga gagaaataaa tgtctttctg gtttaactca 4260
c 4261

<210> 1324

<211> 4453

<212> DNA

<213> Homo sapiens

<400> 1324

agagtatgtc ctgcctggag gcaaggtagc ttggctttta cattccttca tccatctgtc 60
actggctatg ggccctcctg ggtgggcat cacctccaa gcacttcag ctctccatag 120
tgtagggca gttgcagtag caaaagagaa atttctgaag aaggctgcta cagatactgc 180
tgcagcagta tcttctgttg ccatccagat taccatttcc attctcagcc ttctgaagaa 240
ggctgcagtt ggaaataaag catgtaaaag ctgggaatgg gagcacagac cctgcaaaag 300
ggacagaggt ggcaactctg gtggcagcag cagtatctgc tacgtcctct tgggttttat 360
aggcaccagc aaaacacatc ttttgttaaa atggtggcct tctgacggga agggcaggctc 420
tactactgag gtcaaaattc atgtgttatt ttgtgaagca gctactaaag cagtatcagt 480
ccagagaaac gagtctatct ttgaagacca aatacccaaa agatctgctt caaccttccc 540
cagttaatct ttgcccagaa gattcacaat ctgaatgtgg ctgtgagtat ttgattagag 600

tattagtagg tgaaggaagg tggatatgcaa gaatcagctt taatattatc cccgtagaag 660
ggaataattg gtgattagtt ttcaggctat ataggactat tcctcctaaa tgaatggata 720
agctgagaga tttacttcta aagaggtatg gtcttttcat ttttaactcga gatttttagga 780
aagaccaact taaaaagaaa gcaaaggaag tttcaggaga tttcagaatt tagaaggaat 840
tctgaaattc tcttctgggg aaatgaaatc ctaagacttg catggatatt tctgaaaatc 900
aaaatgaaat attttggttg cataaatcgt caactgtagt ttttaactaa ggaaatgtaa 960
tttaaaaaat ccaagtgttc gattttacata agaaatagag ttattttaa atagaagatttc 1020
caaacgctg ttagtggtct ttgacgtctt taaaaaggca tttatatttg tgaaaagatg 1080
atctatttta aggtgtaatt atttctaatt tgcctcatth tggggtctct tgagagatta 1140
gaaattgcta ataagcaatt ttaaataatt tcgaggtaag ttaataaaa acattcatcgg 1200
taattcatga cttgttatca ttctcacatt atccttgtgt gggttaaaggc ctgtccatca 1260
ttggaagtaa ttggaagaa aactttgcct gaagctacat gagaactgga acccttaa at 1320
catgaatggt ggcaagattc caaaattaat tatgaagact attggaatga tgtagcatcc 1380
tttaactctt attgtgatcg acagaaagta tcatagatgg acaactcact ttccctttgc 1440
tctgtgcttc ctggtgattt taggtcacgt ccactctgaa atctgagctg tcattaaagc 1500
catgtcttcg tgtctgtctg tctgaagcag caaagatgag acagtctgtc gctgtgtgtg 1560
acccagtgta gcccataag cagaaggccc tgagtctcaa tttgtttctt ttgattactg 1620
gcagatcact cactgtgcca tttctctgat gtgactgagc atattagctg tgccctcccc 1680
taattattca tgcttccaat gttacccatt caaaatttat gaccatgagg atggtgggtt 1740
agaagcctga ggaactgagg ctcaagcctg ttgccagaga tttactgtca ttgttttagg 1800
tgcaaagtat taacaggcag gccaaactcac ttcaattcct gacttagtac atttagtgga 1860
gaattagttg agaatgagta cattttccct gacacagctg caaaatcaaa cacacgagga 1920
gttattgaaa aactgggatt taagcttaaa cctatcattt ctatatctga tgggcgccat 1980
cccatatctg tgaaaatctg acattgggga agtgaaatgc aggcttaaaa gaatgctttc 2040
aaggtgcata gcaaaagcaa tcttactcct ttagtgtttc ccatttaata cttttcaatt 2100
tttagttagt taattaagga gaaatcact taataatcac ataacataga ttgctactat 2160
aaatacctgt attgtctatg ttacaatttt cgcacttatt ttactttatt atttgtaatc 2220
tgttgggttt tgtgaccttg tgctccaaat gattttgcat ctgtaagggtg gttgggagtt 2280
agataccctt catcatatct tttgccatct ttgagtggct ttttaacct ttccttttaa 2340

aaaaaaatcc cttaatccac agtctaataa agtaggaaaa acaatcaata aagcatacct 2400
acaaaagtgc cattttaaac ttttagtgaa cttaagttta ctcatagtgc atttaatctt 2460
cctttctgtc tgtcagttag caaatattta ttaagcccca acaatataac agagacattg 2520
ctggctgccg ggtcaggggg caagagccat gatgcatttc atcttacttt gaggctgtcg 2580
gtctacaaat atttattgag ctcccaacaa tatgccaggg actttgctag ctgctgtgga 2640
ttcagagatg aaaagacata gttcctttta ttcacagaat ttacaggagt gatacaaaca 2700
aaacaacata ggagacataa gatatgtact ctgattgtct tggctgtgtc agactgctat 2760
tacaacaata ccttagactg gttaatttat aaacattagg aatttattgc ttacagttct 2820
agaagctggg aagtccaaga tcaagggcac cagcagagtc agtgtctggt agtggctgtg 2880
tctcatagat gagtgctttt aaactgtgtc tgcacttgtc agaagtgcaa agggacaaac 2940
aggctccctc aagtctgttt tgtaaggaca ctaacctcat ttgtgagggg atgtcctcat 3000
gacttaatcg cctcccaaag gccctacctc ttaatacgat cacagtggga gttaagtttc 3060
aacataggaa tttgggggga acacaaacat tcaagcaaca acagtgatga tggttaggcc 3120
aagaacggtg cagtcctcaa ggagaaaagc tttatatctg ctagggagag taaggaaagt 3180
agccttgtag ctgaggcttg gtgcacagag aggagtttgc caggcggata agagcaggag 3240
aggcttttca aagcagggga aacaacatgg tcaaaagcat gaagacctgc cagagcttcc 3300
agaatctatc agagactttg agttgttggg gaatgaagta taaggcaagg agtgactgca 3360
gctgaggcat ggttggtatg gggtcagatt acaaagaaac tgtatatgct gttcaaagtg 3420
gttcctatat tttcttctg ctggttatta gaagggcatt tgcccctttt aggaggcatc 3480
tgctatggtt aagataatag aaaagggaat tttcctacaa ctcagattac atagttgcga 3540
gtgagacaca ttcctaggtc cctctcccca aaaagccttc agaattggaa cagatttttt 3600
gatggtgaag tttgtggtga catcactggt ttgctgtctt aaaggccact ggaattagga 3660
atgcccgtgg atgaaagata ttttttgcca tggacttagg aatctgggtg tgagtatttt 3720
ctcattggtg ggtcaagact gacagctgcc ctctgcaagc tctttgaaa ggtaggaagc 3780
cctgaaggac ctaggtgatg ctattacttg atggctcaag cagatcttca caaattcaat 3840
acatgaaaga taggaagtaa gacgtatgag tgatggggga gtgaggttag agtggtacat 3900
ctatcataga ctgtagataa aggaaagaaa agcagaggag gggaggatac acaacttggc 3960
aatgtcgaga tccagccatc caaacaagca tggaagtcct tggatgaagct tgactcccaa 4020
ggggcattgc tttgcatcag gcacctgcta gtctctgtat gcaaagacag catggctctt 4080

ctagactgta atgaatagcc accaaaatct cttggatgtg aacctgctga cttcccttgt 4140
 gaaaactatg cctaaaggtc agtgaatcct gttttggagc tgcttagggt cactaacacc 4200
 aagaaaactt catacttcac ttttctctta tccctgcaga atgctggaat ggaagaaaaa 4260
 aaaaagatga aaagtaggtc atataaattg gtaatgccta attctaattc agtgatctca 4320
 tatagcatta gaataaatta gaatacattt tgatgaaaat ttccatttta ttaaatagtt 4380
 gcttcgtgca taagcagtgc agctggacca cactgtttct aagattgttt tcaataaaat 4440
 ctcattagct cac 4453

<210> 1325

<211> 4352

<212> DNA

<213> Homo sapiens

<400> 1325

aatttattaa ggctttaatg aaatctacct attttatggt atataatctc attaatgtgc 60
 cacttggaaa gaataataac agatatattt ttattggcca gttactatgg gccacaaatt 120
 atgctgagct ttttttaatt tcatttcatt ttattttatt ttttgagatg gggctctcact 180
 ctgtcaccca ggctggagtg cagtggcgca atctcagctt attgcaacct ctgtcttcca 240
 ggccaagca atcttccac ctcagcttcc taagtagctg ggaccacatg catgtgccac 300
 tacgcctggc taattttttt ttgtatatat ggtagagacg gggttttacc atgttgccca 360
 ggctgctaag ctttttatat acagtatata gaaagagttg gttttcttaa acaatattta 420
 tttctcataa taactctatg aaagcaggta tagacttctt gctttctagg gttggtatct 480
 tgcttgttga ggacctacc ttttgtgttg ccgaattttt cattgtttga gttctgtctt 540
 ttgtttcaga aagccatgga gttttgaaat tattgttata tcattatttg ttacataatt 600
 atttctactt ctagaatctc atgctaactt ggaagtgtct tctcagcatc aagcctgata 660
 tggaggggca gctacaccct aatacgtccc aaaactagtt atgctttggt ttatacgtaa 720
 tgcttctggt attagacaag tggtttccaa atatcagaag cagtgctagg acttaaagga 780
 aaagggggag tgttttttct tctaatagaa cttttgagca gtgatgaaag gaaaacaaga 840

agactcaaaa gattataaat ctcaggcacg aattagtgtt ctgccaatta ggaacattct 900
gattgcttga caaggtctat attttgctga tgaggagtag aagcctgtgg gaggtggggg 960
tggaagcagc agaaggaaaa gagtagcaag tatntagtaa aatgtattca tcatagtgga 1020
taaaaatcaa gctttgggga aaaagggtcaa actccttcaa tgatgctgta catctgtacc 1080
tttactccat cctatagcaa atatttgtat aactgcgcag aagaaattgg acaatattcc 1140
ttgaaaaatt cttagaaagt tcaactttcc aagttagtat caccccaagg aaaattatat 1200
gagtaggaat acctaatttc tagccatact ctagttccag ttagcttctc taagtagctg 1260
gaactgcagg cgtgtgccac cacacctggc taattttttg tatttttggg agagaagggg 1320
ttttgccgtg ttgccaggc tgctaagatt tttatatata gtatatagaa agagttgggt 1380
ttcttggcca ggcatgggtg ctcgcacctg taatcccagc actttgaaag gctaaggcag 1440
gtgaatcacc tgagctcagg agttcaagac cagcctggcc aacatggcga aactccgtct 1500
ctactaaaaa tacaaaaatt agccgggctg ggtggcacgc acctgtaacc ccagctactt 1560
gggaggccaa ggcaggagaa ccacttgaac ccaggagggt gaggttgcag tgggccaaga 1620
ttggccactg cactccagcc tgggtgacag agcaagactc tgtctcaaaa aagaaagagt 1680
tggttctgtt aaacaatatt tatttctcat aataacccta tgaaagcaga tacagacttc 1740
tggcttttta ggattgggtat ttcacttggt gaacacctac ctttgtgtca gatgtatagc 1800
aggttaacaa agtcaataca gtgatacact tgacataatc tttgttctga gtttttttcc 1860
caattatagt aaaattggag gtcttaactg ttctacatta gataaatata tgcatttggt 1920
ttaagagct aagcaatgag aatcttaca ctagagctga agttcaagaa ataatgtcc 1980
aatgattaaa ttttttccac tgctgttcac atcatgattt gttgtgatta atgtatgtgg 2040
atgaggacat aatagaaaaa gaaaatgatg aggcttgtat atattgtgtt tctgcacaat 2100
gagttccttt gaatgttttt cgttttagga ataaaattga aggggtgttt tcttagagaa 2160
catcatttgt catatttatt tgatcaagaa gttgaagatt tatataataa ggtatgggac 2220
ttacacattt attttgataa aagaacacag aaaagggtcag gtatgagcag aaaattgaca 2280
tttatttcag cctaattgtg atactgtact ctgaattaaa aatttctttt cttactctt 2340
ccagctttta aagataagta ttatttcaaa atagtatttt ttttaattaat agattcaatt 2400
caggaaaggc attggagggg gtggagcttt taactttgac agtctcactc tgttgcccag 2460
gctggagtgc agcggcgcaa tctctgtctc ctgcaatctc tgcctcctgg gttcaaatag 2520
ttattgtggc ccagcttccc aagtggctgg gattagaggc gcatgccacc acaccagct 2580

aattttttttt attaagtaga gaccatgttt tgccatgttg gccagactgg tctcaaactt 2640
ccagccacca acctcagcct cccaaagtgc tgggattata gtcataagcc accacacctg 2700
gctgttgggtt atcttttctt agaaataatg atataatctt ttcagcacct gatattctta 2760
aagatccagg gtttaciaat gactgttaga tatgccaagg atgactagcc tataacttaa 2820
ggaactgttc aggaacagta gaaaagaagg tgataggaaa ctgggaatct taaatctaata 2880
actagtcttg tcatgaatta ggcttgttat tgtagtgttg tctcaaattt aagaaaatat 2940
gaggggtctt gaaaaagtgc atggaaaatg catatcatga aaaaactatg catggatttc 3000
aaaatttttg gacaaaaata aactcctact aacttgttat aacatgtctg aacaggatct 3060
agtttgaagc actaagaaga ataagacatc agtttgaaaa gaggtcttat cagaacaaca 3120
cgaattctgc taaaattgaa gcaagaacaa acatcaaata tatgttgaca cttgggtgga 3180
agaatggtga actaattgat gctttatgaa aagttagatg ggacagtgc ccaaagaaat 3240
cagtttacia atggataact cgttttaaga aggcataagg taatgttgaa gaagaagccc 3300
acagtggcag atcatccaca tcagtttgtg agaaaaaagt tagttcatgg cgtaattgaa 3360
gaaaaccaac aattaacagc agaaacaaca gccaacacca tagacatctc agttggttca 3420
ccttacacia ttttgactgg aaaagttcag caaactttat acctgatagg taccaaaacc 3480
attgcacca gatcagctac agacaagaat agagctttca atggaaattt taaataaatg 3540
ggatcaggat cttgaagcct ttcattgaaa aattgtaaca ggagatgaaa catggcttta 3600
ccagcgcaat cctgaagaca aaacaaagca gtggttacca agataagtag ttcagttaaa 3660
gcacaagagg actggttgag agcaaaggtc atggcaacag cttttgaatg ctcaaggcat 3720
tttgcttgtt gactttctgt agggccaaag aatggtaacg tgcttatcat gggagtgttt 3780
tgagaaactt agccaaagct tcagcagaaa aatccccgag aaagaccaga gagttcttca 3840
ccacaacaat gttcctgctc atccctctca tcaaacaagg ccattttgca agagttttga 3900
tgggaaatca ctaggcaccc accctacagt cctggtttgg caccttctga cttttgttt 3960
cctaacttta aaaaaatttt tcagggcagt acatttttct caagttaatg tataaagaaa 4020
ctgcattgat gtagataaat tcccagaact ctcagttctt tagggatgga ctaaatagct 4080
ggatcatca cttacaaaag tgtcttgaat gctatagagc taatgttcaa aaatatagtt 4140
tatatttttt atcttttaac catttttcca caaacttttt gaagtctcct tgaatatgta 4200
ccatttataa aggggaaaaa ttctgtgact actcatgttg acttaatgct gacttaattt 4260
tctgttttgt aaatatatac aaacaagttg atacaaattt tgtttatagc ccttaacaaa 4320

atttgtgaaa taaatgcatt cagaaacaaa ct

4352

<210> 1326

<211> 3845

<212> DNA

<213> Homo sapiens

<400> 1326

gttgaacaaa cccagcctgt gacataatca aagcatacct taatttgtat ctcccagtgt 60
cctttctaag atgtatttgg tagagaaaca ttttccctgc cactgggtga aatctcccca 120
ttattcttct gcttgttctg aggaaacagg caattctatg gtcactttag gtcacaaaca 180
caacctcaat ttagaaatga gaatgtccag tcaagcttct aaccaaattt cccaatttga 240
tttgggttta aaccttctcc cctcacctc aggcctgctt caggagggtg gtgtgggtga 300
ctccttctct atctctcctt cctcaccca cccgtggggg acagtggggg gtgttggaga 360
tggcaagggg agaggaaggg tctcccttga gctgccacca tcctggctgg cttcaagctg 420
cccccttctg tcgtgggctc catggagatg gccactgtca caggggccct ctcactctta 480
accttggggg atgcatctct cctcataggg gtccttgcga agtccttcgt cagcccttag 540
gaaccaaca tccaactcaa gcttcttget gctgccacac ctctgccctt ccaggaggct 600
ctaggggaca ggaccaaga ggacccttg taggtgctct ctgccaacac tggcccatgg 660
gaaacactcc agccagcagc ctgtactccg aaagtcctgg gaatgtggct taccttagca 720
cgccacact ggctccttca ccagttcagc caggcagccc gtttctctca gcctctagat 780
gtccatgccc acatgagacc actgggcccc ctcacaatgg ccacacatta ttctctacat 840
atagtggccc ctctcatgga agagccccca tgacccatt ccacccttcc agggagatgg 900
tcaccaaaga actctttgct tcctcttccc atcctaggag aatgtggtgg gtataggggt 960
aatagtaa atgtgggggttt tgggtagcca tggccaaatt ttagcagctg tgggtttgga 1020
ctgggctctt ttttgttgtt gttgttgtta cgtaaattaa cccatttatt acaggccagt 1080
gatgtctcaa agagtagagg agcgtctact ggtctttcaa ctccttcagg cttctgatgg 1140
cggactttac cgtgatagcg gaggtggtat tgtatgtcca ggcaccgcca gccactgtct 1200

tcacgcggga accacagtgc cagatccccg cagctcatct ctcatcttg gtttcgccac 1260
agaaagagca agtgtacttg gcctgctggc tgatttcaac tttcttcacc attttccaga 1320
gggaggcccc atagcgggtc ccgtatttac cgacgatccc gactttcttg gtaggtttgg 1380
ccatgtcacc gcgaactagg tccgagccca gagagtggga ctgggctttt aaaaaacagt 1440
tactggttgt cacagcagag ctttctagaa acatcttaca agtcatgtcc accaccccca 1500
gcctcagttt tttcatatcc ttactgcggg tggcagcacc ttactgggtg ggggtttgtg 1560
gtgagggtg agtgaagtag tgaatttgcg gagctaacac tccagaattc cacaatcaca 1620
gacctgcaaa ttccatctcc gtgggacat ttacaagtga tgtggcttct ctgagtctgt 1680
ttactccttt gttaaagtga agagcctcta ctccattgca tctctgtaag gttagttaag 1740
tgaatacata tgacatgctt agcacgggac ctggcacctg gtaagaactc agtccatgct 1800
gggcgttttt aatacaacgg tgggtggctg gtactgacgg aggggatttg ggatctccac 1860
cccttccgtt tccctcacta ttccaggccc tgttttggaa atgcttcagc caggctggga 1920
tccagggccc ctgggaacag agaggacata ctgtacctcc aagcagccat gctgactcag 1980
gttaggaaat caatgtgtga ccacaaaaac acagccaggt tcttcccact tctgggaaat 2040
ctgcacagcc aaccatggg catctcttta ccctgtcccg agaggtggcc agcttcgttc 2100
taggacctga ttctgcagct tgtgagcaca aggctggcac atggagaaac aggagtctct 2160
cgctccttag ggaaccccag gcccggggtc acaagcttg cacgaccctc tgattgggggt 2220
caaacatgtc tgggtgtttgc gaagcctctg acttccccca gcctgcgtct ggacacttct 2280
caagccaagc caggctccgg accactgggtt gggcaacgca tgacctcaa ctgggtcaga 2340
cccatcagat gagcatctgt ttaagagtat aggacacttt gttctttaga atcccaaggg 2400
tcagagtatg aacctcccc gtccccaatt caaactcctc ctccatcact tactgccatt 2460
tacttactct gttactttga gcaagttttt cagctctctg agttctagtt ttcctagcca 2520
ccaaatgcag actaacaagt accttcacct tccagggttg atgtgagatt cgggtagtga 2580
atgtcaaaga atggcacaca tattagcagg cactccataa gggggagtta ttattgcaaa 2640
caggggcact agacaccaag taaaaaacag tatggtacat atgctacagt ggatgagagg 2700
gcagagctga aagccagact gcctgggttc caaaccaggc tactggccag gtgcggtggc 2760
tcatgcctgt aatcctagca ctttgggagg ccaaggcggg tggctcactt gaggccagga 2820
attcgagacc aacctggcca atatggcgaa acccatctc tactaaaaat gcaaataaaa 2880
ttagctgggc gtggtggcat gtccctgtaa tcccagctac tcaggagact gaggcaagag 2940

aatagcctga acccaggagg cagaggttgc agtgagccaa gattgtgcca ctgcactcca 3000
gcctgggcca cagagtgaga cgctgcctca aaacaaaata atacaaaaca aaacaggctg 3060
ccctgccacc tcctgtgtgg ccacagggaag agtctctaag cctcagtttt cttctctgta 3120
aaatgggaat aatcataata cagttataag gattcaatta gattagtgc actggaaaca 3180
gtgcctggca catagtatca cctaataacc attaacgatt ttttattttg ttttattttt 3240
ccagtctctg cccagttgg gaagcatgaa ctatttttaa ttagccacac aagttagtaa 3300
tgtcggtaat ggtgctgaaa tcacacgggt cagtgttttg aacaaaattc acatggaagt 3360
catatttagt gagcatctac ctacatacct ggtgctaaca gaaaccatac atttagatac 3420
atgtatatgt acatgtaaac acacatatgc acacacacat agtgtgaagt aagtgttgct 3480
gtcctcattt tttaaaacct ttatattata gagcaaaaaca gttgcagaaa accacacaaa 3540
ttaaatgtgt agcagccagg tgcagtggct tacacctgta atcccaccac tttgagaagc 3600
cgaggtagt agatcacttg agctcaggag tttgagacca acctggggaa catggcaaaa 3660
cctgaaatgc catctctacg aaaaatacat aaattagcca ggcatggttg gcacgtacct 3720
gtagccccag ttactcagga ggctgaagca ggaggattac ttgagtctag ggaggtctga 3780
ggccacagtg agctgagatc aactactgt actccacccc aggcaacaaa gtgagacact 3840
atctc 3845

<210> 1327

<211> 972

<212> DNA

<213> Homo sapiens

<400> 1327

aagatgcagc ttttgaag gtaagacatt cctctccact ttctcgcca cctgtaacaa 60
agctacaaat cttccagttt ccatttctat gatggtttat tttttgact tcaaaacaaa 120
aaagttaacc aaattaatta acctggcaca tggaaccct caatccctt taaaatctga 180
gagccgatga atcttgaaga aatggcgcac agttccagt ctgttgattt gaccatgagc 240
cctggtctta tcattggaag gtcttttgct aagaaaaatg aatacggtgg tgaacaata 300

tatctggagg agcttttcaa aattagtaaa cttgggcatg aaacctggtg gcagagatta 360
 gcagcaccag gtaagtcagc catgggatgt gctgggacca gcaggcttgt tagatctctg 420
 gcctgccagg tgatgagcac acagactgtg gatattgggt ggggttttagc tgccaaaata 480
 aatttttctc attagaggca agatgatttc caagtttagat tttttttttt aagattttatt 540
 ttaggaatga ctgagaaaaa gaacattgta cctaaattaa atgtccaaat gcctgacggt 600
 ggcataagat tgcatacatg cgcttccttt gtcattaagt gagtttttaa attgtgaaaa 660
 ggggtgggga ccatgttaag aaattaacca ttggccaggc gcggtggctc acacctgtaa 720
 tcccagcact ttgggaggct gaggcgggtg gatcatgagg tcaggagatc gagaccatcc 780
 tggctaacat ggtgaaacct cgtctctact acaaatacaa aaaaattagc caggtatggt 840
 ggcgagtgcc tgtagtccca gctactccgg aggctgaggc aggagaatgg catgaacccg 900
 ggaagcggag cttgcagtga gccaaagatca taccactgca ctccagcctg ggcgacagag 960
 caagactgtc tc 972

<210> 1328

<211> 3608

<212> DNA

<213> Homo sapiens

<400> 1328

agcgagtacg cccggaaccg aagcttgcca agcgggtcgc agagagagat gggcgttgca 60
 gaatcagctg gggtcactta tttccggtct cactccagat gaaggagcca ctagccggcg 120
 agagttcacc gagggaacgt gacactcata tctcatcgag ggaccgtgtt gagggagccc 180
 ctacagagag gccaaaggag gagagggcct acggagaaat gaacctctgt aaaagctgct 240
 ctttagggat cagtcttttt gtgactctag cttcatagct tggctctctc attactccag 300
 ccttcctttc aatcatacac tgccctctctc cagcaccacc aatggatact tcttttctaa 360
 aaatgttttt ctgtgggttg ctgccgtgtc tgtgagaagc tggacacaaa ctcattccta 420
 aaatatgtgg atggaagcta tggttaacat ggagacaggg caggtggcaa ggagaggcag 480
 agacagtgtg agagaccaat agacagatag gaagagagaa gatataagga atgtttcaga 540

cagagatcgt caagcaagat ggaaaaaata agacgtctaa gcaagactga gattaaagag 600
atgcaatgtg agagagtgtg ttacaagtgt gccatgtgcc gtgtatggca ggtcaggtct 660
ggcgcacagg agcgcacaaa cacaccaagt gcggagaatg gggatctgct gaatctcagc 720
gaagaatctg gatgatggtc cctgtctggg tcgcggagga gtcccctaag gaacacttag 780
gtttgttggg gctgagggga ggtcggctga gaaaaggaag tcaggattgg agcctctagg 840
tttttgaggg tttatgtgtg catgagtggg ggagcagttt ggtgcctgac gccccaccc 900
gcagtgacta ggctataaat agcacagcag agctccgccc ccccccccc ccccgccaa 960
gcttctctcc tcccagtcg gcgctgtgcc cggggcgctc cgggaggagg gaccaggatc 1020
cagcgccggg gcgcagatac tgacaccaag ggaatccggg tgccccccc ccacgccatg 1080
cgggccccca ggaaactggc tccgccacct cggtgcccc gtggccacgg cccaatcct 1140
ggccaggcgg agattctgcg gacattcagg gatcggttc gtcactgaga cctcaggcct 1200
ctgccagcca ctccccctcc ccataccct agtcactcct ggcaggtctc agtcccggcc 1260
ccatctgtgc cctcgcccca gccgcagcta tgttgacac cgagggccac gctcttcttc 1320
gggcggtggg tcagggttaag ctacgcttgg ccggtttgct tctggaggga ggcgcctacg 1380
tgaatgaggg tgatgcgcag ggggagactg cgctaattgg agcctgtcgg gcccgctacg 1440
acgaccccca gaacaaggca cgcattgtac gctacctcct ggagcaaggc gcggacccca 1500
atatcgaga ccgattaggg cgcacggcgc tcatgcacgc ttgcgccggg ggtgggggcg 1560
ccgcggtggc ctgcgtgctc cttgccacg gcgcagacc ctcagtccga gatcacgcgg 1620
gcgcctcggc tcttgtccac gccctggacc gcggggaccg cgagaccctt gccacactgc 1680
tggaagcctg caaggccaag ggtacggagg tcatcatcat caccaccgat acctcgccct 1740
caggcaccaa gaagaccggc cagtatctca attctccacc atccccagg gtggaggacc 1800
ctgctccgc ctctcctagc ccggggttct gcacgtgcc ttcggaaatc caactgcaga 1860
ccgctggagg aggagggcgt gggatgttat cccctcgcgc ccaggaagaa gaggagaagc 1920
gggacgtatt tgaattccct ctctctaagc ccccgatga cccatccct tccgagccgc 1980
tccccaaacc accacgccat cccccaaac cactcaaaag gctcaactcc gagccctggg 2040
gcctagtggc cctcctcaa ccagtccac cactgaagg gagaccggg atcgagcgct 2100
tgactgccga attcaatggc ctgaccctga ccggtcgacc ccgtcttcc cgacgtcaca 2160
gcaccgaagg ccctgaggac ccgccccat gggcggagaa agtgactagc gggggtcctc 2220
tctctcgccg aaacacagca ccagaagctc aggagtctgg tccccctca gggctgaggc 2280

agaaactgag ccgcatggag ccagtggagc tggacacccc tggacacctt tgccctgact 2340
cgccctgagtc cagccgcctg tccctggagc gccgccgata cagcgcctcc ccgttgaccc 2400
tccctccagc cggctcggct ccctctccgc gccagtccca ggagagtctg ccagggggcag 2460
tatctccgct aagcggaagg aggcggagtc cggggctgct ggagcggagg ggctcgggga 2520
cgttgctcct ggaccacatc tcgcaaacgc ggccggggtt cctaccccct ctcaacgtca 2580
gtccccaccc tcccatccct gacattcgcc cacaacccgg aggtcgggcg ccttcgttgc 2640
ctgccccctcc ttatgccggg gcgccaggct ctcccaggac caagcgcaaa ttggtgagac 2700
gccactccat gcagactgag cagatccgcc tgctgggggg cttccagagt ctaggtgggc 2760
ctggggagcc agggcgctga gaggagttag aggagccaag gaggtgggg attaggacct 2820
taatgggata ggtgggagaa ccagctcaca cacacaccac gaacaaagg atctcttgca 2880
tgtgctcatg ggtgcacagt gcaccacac atggttaaac atgtgtccat aagcacagta 2940
ctcttattag caagaaagaa taagtactct atttactggg tatatacaca catgtattca 3000
tgccctggtc atttcacatg catatgggat tacttgtgta cctacaggca cagcatatca 3060
ataaacacac agggctaggg tcccaaactc tcttgcatth gttcagaagc agtagggaac 3120
ccttacttat gggcagtctc cgatgtcttt gccctcctgc agaagcaatc ccttgctttc 3180
catgtatgcc ctgaaacaca gcttatcatg attttgaca ctctctccgt ggacatccca 3240
gcccattctg caggtcttgc ttctttctcc aggcctggct ccttattcac accctgcttc 3300
taaccccaac cacttttcag gatattcttt tcaactctct tgggggttcc tgcagcaacc 3360
cccagcctca gttctgctgc tgtctttact gctctcaact tcacttctca acttcctgct 3420
ttttattccc accctgttcc tccaacaact acaacagatt gtctcatttt cccaggggggt 3480
gggtcatggg ctctaagctg ctcttctgtc tgtctgagct tatgaacacc cccacaggta 3540
gaagtgggga gaaaccctaa atcactcctc tctccacttg acatatcaaa taaatgtgtt 3600
cagaagtc 3608

<210> 1329

<211> 5897

<212> DNA

<213> Homo sapiens

<400> 1329

cagccccggcc	ttttgcttca	gcaaaagcct	cctgacgacc	ccgtgggtgaa	gcccaaggat	60
cgaccaccgt	ctgcccgtgt	gaaaaaatct	tcttgctctc	gtatagtgt	tagctgtgat	120
gactccgtta	agatcacttt	caaagtgtgaa	acagaatatg	cattcagttt	agacagcaaa	180
tataccaaca	accacttgga	gaaaactgta	gtaagagcat	tacatgggcc	ctggaatact	240
gatttgcctg	ataatgtgga	agaagtgaag	cttttacttc	atatgtgggt	agctctgttt	300
tacagcaatc	agaacaaaat	catacgatct	tcccgaagg	ttgtagaaca	cagcaaccca	360
gcaaaatatg	tgtctataaa	tagcacgtta	gaatcttgtg	agctccgtga	aattgaggag	420
tcccttggtt	tggaaaaatg	ttctgcagac	tctctgttgg	agactaacga	aatttccagg	480
gctcatgctg	ctgaagtatc	cttccgtgat	cctaactgct	tgcttccttt	cattaaaaca	540
ccacttacc	aaggcttgga	actctgtgta	caaaatgaac	agaaaaaac	ttttgcaaga	600
gagtgtgatc	cagacacca	agaagaccag	aatttcatct	gttcttaca	taatgaggta	660
actggggaag	aagctaaaca	agaatcattg	gagacttcta	atcttgtgct	ttcgggtatt	720
ggaagtacac	aaactaatgg	accttctgtt	cctagtgaag	aagaaattgt	tcagccactg	780
gatagcacia	gagtggcttc	ttacagtggc	actgttactc	aagccacatt	caccaggact	840
tacgatgggc	ctggcagtca	gccagtgata	tgtcagagct	ctgtgtacgg	cacccttgaa	900
aacaaagtgg	atattcttga	tgcagcagtg	caaacaaaa	caggtacttt	acaggacctt	960
atccaacatg	gcagcccat	aaacaatgaa	tgtcaccctt	ccttggaag	aaaggatgat	1020
aatatgggggt	gtgcagtgat	taaccggaa	ccaattactc	tcaccttga	aaaaaatgca	1080
catgtaccaa	tacagacaga	aggtgtaaat	actgctgatg	aacctacaac	ctttaagaag	1140
gagttgatta	agcaagtatc	acctgctgca	agccttagac	atcctgtatc	cacctcgga	1200
aatgcacgaa	cacaaggcct	gaggacatt	ccctctctag	tagttgcagg	acagaagggc	1260
actaagtacc	tttgtgcctc	gtcagtaggt	ggagagacac	ttgataaagc	agtgtgttca	1320
ttacagaagg	agacgccct	tccagtctct	ctaccatctg	ataaaacaat	ggatcatggag	1380
gcactatcat	tagctaaaag	ttctagtcat	ctatcaccca	gtgaagaagt	gagatgcact	1440
caggatttcc	tttcacagac	tcagagtctc	ctcggcctat	cttcagaagg	gcttctagaa	1500
ctgacacagg	ttgaagtgga	ctcatcatca	gcctctacca	ccttggaag	gcagtgttca	1560
cttaattgca	tttcgtcagg	atgccacaca	tcaggtgact	ctttagaact	aaggaagaat	1620

cacaagaatg gtccaaacac tgaaaatatg aatttgggaag cgtttgattc agtattttatc 1680
aaacaaacaa gcctgtctgt gagtagagag gtcagcctag agttatcaga ggaagattct 1740
gacattgact tagctctaac aatatcacca cctacaagtc ccagagaaga aatgccagct 1800
ggtgaaatag agcaatttga ggaggcccca ttctcaaatt tagaacttca ggatgtagct 1860
gaggaaatag gtgaaccgga agaggtggct ctcacagaaa gcagagaagt gagttctgct 1920
gacaatgtgt cagtatatcc ctcagtgtca gaagaaccag tagaaaataa ggagagaaag 1980
ggggataatt tacaaccagt tactttaata ctttctaaag aaaattgcac ctttgagatt 2040
gcagaggaaa ttaatgtgac ctctgatttt ccttttgatt ctgtaattga agaagtatca 2100
ccagcgtcta gtcctgaacc tccagtacca gttaaagaga caccaccata tcaggctgtg 2160
actccatgca ttttaaaact tcatggtaca cagtgtgaga agagcaacca aatctcccaa 2220
tgtgagtcag aagacttagg cataacagaa aaagaaaatg tttttgttgg tcctacccat 2280
ccagtggggc aagataactt taccaggta caacaaatgc aggtctctgc cgaaatgcct 2340
ctaataataa ctgatcatcc aggaagaaca ggtagaccaa cccttcctgg taaagtaact 2400
gaggaaattg tctcaagtga gcatgatgag ggtttatctt tctcaggaaa ggtgcagtgc 2460
tatggtaggg agttaacca gcctgcctca gctgccaaat gcacaggatga cttcagtcct 2520
tctcctgaaa aactggtaaa atcaggaaat ccattgcagc cagttagtat agagaataga 2580
aatttggact taaaacatct tgtcttggag tccagtgaac ctccatttgg tcctagaaat 2640
gttattgaaa ataagtcttt gtctgacaca ttggtttcca caactgcacc aagtgggtata 2700
gtgaatgtgt cagtaaaaca gcagactagc cctaaaagca gtcagaacca tctctttccc 2760
ggtgatttga aaacagatga aggcatttat ctgcaggatga agtccttgac agctgcctcg 2820
gttgatggag cttattctac acagggatgc atgtgctcag tgggtcccccac gctttgttct 2880
tcctcagaca atgctacatt aaccattat gtaagaccaa taaatgcaga gccagcgttt 2940
caagcacagg aaataccagc aggcagaatg gccagtttgc ttaagaatgg tgagcctgaa 3000
gctgagttac ataaagaaac cacagggtcca ggcaactgctg gccctcagtc caacaccaca 3060
tcttctctaa aagggtgaacg caaagccatc cacacgctgc aagatgtgtc aacatgtgaa 3120
acaaaggagc tattgaatgt cgggggtttcc tccctttgtg ctggtcccta ccaaaatata 3180
gcagacacca aggaaaacct cagtaaagag cctttggcct cctttgtttc agaatecttt 3240
gatacttctg tttgtggaat agccacagag cacgtagaaa ttgagaacag tggggaggggg 3300
ctcagggtctg aggctggttc tgaaacccta ggcagagatg gagaggtcgg tgtgaattcc 3360

gacatgcact atgaactctc tggagattct gatctagacc tgcttggtga ttgtagaaat 3420
cccagactgg atttggagga ttcttatact ttaagaggta gttacaccag gaaaaaagat 3480
gttccccacag atggctatga gtcgtcgttg aacttccaca acaacaacca agaggactgg 3540
ggctgctcta gctgggttcc aggcattggag acgagcctcc ctcccgggca ctggactgct 3600
gcggtaaaga aagaagagaa gtgtgtgccg ccttacgtcc aaatccgaga tctccacggg 3660
atcctcagga cttacgcca cttctctata acaaaagaac tcaaagatac catgagaact 3720
tcacacggcc tgaggaggca cccgagtttc agtgcaaact gtggcctgcc cagctcctgg 3780
acaagcactt ggcaggtggc agacgacctc acccagaaca ctttagacct ggagtatctg 3840
cgttttgcac ataaactaaa acagaccata aagaatgggg attctcagca ttctgcctcc 3900
tctgccaatg tctttccaaa ggagtcacca acccagatct ccattggtgc tttcccttcg 3960
acaaaaatct ctgaggcccc atttctgcat cctgcacctc ggagcagaag ccccttctg 4020
gtaacagttg tggagtcaga tcccagacca caggggcagc ccaggagagg ctacacagcc 4080
agcagtctgg acagctcttc ctcttgaga gagagatgta gtcataatag agatcttaga 4140
aattctcaaa gaaatcacac tgtttcattc cacctcaaca aactgaaata caacagtact 4200
gtgaaggaat ctcggaatga tatttcactt attctcaatg agtatgctga attcaacaag 4260
gtgatgaaga atagcaacca attcattttc caagacaaag agctaaatga tgtttctgga 4320
gaagccactg ctcaagagat gtatctgcct ttcccaggac ggtcagcctc ctatgaagac 4380
ataatcatag acgtgtgcac caatttgcac gtcaaactaa gaagtgttgt gaaagaggct 4440
tgtaaaagta ctttctgtt ctacctgtc gaaacagaag acaaatcatt ctttgtaaga 4500
acaaagaacc ttctgaggaa aggaggccat acagaaattg aacctcagca cttctgtcaa 4560
gctttccaca gagagaatga tacactaatc atcatcatca gaaatgaaga tatatcatca 4620
catttgcac agattccttc tttgctgaag ctgaagcatt tccccagtgt catctttgct 4680
ggagtagaca gccctggaga tgttcttgat cacacctacc aagaactgtt tcgtgcagga 4740
ggctttgtga tatcagatga caagatacta gaagctgtaa cattagttca actgaaggaa 4800
attatcaaaa tcctggaaaa actaaatgga aatggaagat ggaagtgggt gcttctactac 4860
agggaaaata aaaagctaaa agaagatgaa agagtggatt caactgcaca taagaagaac 4920
ataatgttga agtcatttca gagtgcaaat atcattgaat tgcttcatta tcaccagtgt 4980
gactctcgat catcaacaaa agcagaaatt ctgaaatgtt tgctaaacct gcaaattcag 5040
catattgatg ccaggtttgc tgctctccta acagacaagc ctactatccc cagagaagtc 5100

ttgaaaata atggaatcct tgttacagat gtaaataact ttatagaaaa catagaaaaa 5160
 atagcagctc catttaggag tagctattgg tgactcaact acagcctgcc tggatatgga 5220
 tgatgccaat aaaaaattag tattttccct ttggaaaact tgtgaacatg tgaatacaca 5280
 tgtgaacagt cttacatttg aaaaaccaat gttctacaac ttggaaagtt ttcatttttt 5340
 atattttgct gaaatatgtc acagtggcat tgcagttgtc tgtagctttt gggttgcagt 5400
 gctagatatt gttttaaatt attttcattt taaacaagat gccttctaag ctattgagct 5460
 tattaanaat aattttacat gtttacttag ttggagcaaa aataagtcta ttttaacaaa 5520
 tagctttgtt ttgcatgct aatgtcagaa aggcatacga tgcacattat gctgttttaa 5580
 aggttttacc acccttgtaa aaactataat cttaaagggt tttatttgct gttacacaaa 5640
 caacactaca taaaacattt tttcctaaat ggtacaaatt tataaactat catttttcac 5700
 ttacgggtatt tgtaataact acactacaaa aatcagcttt ctgagaaaga aataatcatt 5760
 tatttatgat attgaaaatt tctacagtaa acactcaaaa ccaagcaaaa aacatttgta 5820
 agatacacgg tatctatttg gagcaacggg ttttgtaact aatgtgtttc attttttaaa 5880
 taaagacaac taaaaat 5897

<210> 1330

<211> 3587

<212> DNA

<213> Homo sapiens

<400> 1330

cttgcaaggc tgtctctggt ttcgtttcac caccaggat aaacctcagc ttcagtaact 60
 ctctgcccgc tgcagtcctc cagtcttgcg gtggtaggga acccaattcc aacgcctagt 120
 gctggggcac tcgccacact cactgctcaa ttctggcttt gtgggccatt tctgctcag 180
 agcatgtgct ccaatctcca gccagcgact aaaatgcctg cagtggcccc tgctgccagg 240
 tggccagtga ctgactttgt ataagccagg gttaaagatt gcgtcctcat ctgagccca 300
 agtccgggaa aatggctgca gcttttcctg gtgtctctct gtctcttcgc ctctctccaa 360
 gttatctcca gggtttgaga gaaacaagtt attctccctc ggcctggatt gcacggatcc 420

ctagtggaaa ggtgagtcac ggaaactggc tctctgcccc ctcacgtact ggagtgtcag 480
ttttatcagc cagagactat catggggggc acctgtccac ctcctcctcc tcgggatctg 540
gggtgtcttt tgctattccc gtgagtttcc gtgatttttt atttttttcc tcacggagtg 600
gatctttacg cattattttg ctattttcaa gtggctgagg cacaccatgt tgggaaaatt 660
ccattatcaa tttatgccat taattccttc caagttcttt tgggtgtattt tgctgtctat 720
ctctacttgg atgagtttgt cattaaatca tcattttcag tatatgatta aagcatataa 780
actaacactt tagttgcac ctaccaagtc ttacatgcag cttccattta tttaaaaatt 840
gttgatctct tactgtgcca ggcaccttg tagttgtatg ggaaagataa aaattgctgc 900
ccttatggag tgggaagata cattttacag ttaacatgtg tacatacatg cacacataca 960
tatatagga tagatgcaat gggaaaaagt atattaaaaa gcagttggag ttttaaggggt 1020
acagttgcta aagtaacaat attcactgtc atttgaagta ttttctaatt ttcaacatga 1080
tttgacattt ctagaagtta atactttcaa tccaagcata tggacatttg gcatgtcttg 1140
gattatctac ataatttttt aaaattaaaa acatctaaaa actgatattt gtacatatta 1200
gtggggtaga tgtggtattt tgttacatgc gtagaacgtg taatgataaa gtcaggatac 1260
ttacggtatc catcacctcg agtattttatc atttgtgttg ggtacatgac cagttctctc 1320
ttctagtta tttgaaatac attgtaaagc aaatgtatac actgttaact acagtcacca 1380
tctctatttc ataggtgatt tctaattctg tcttataagg tgatttctct tgtctgaaaa 1440
actattacgg tcttcagtat taagttttgc tttgtggtct actataatga atttttgtga 1500
atatgttatt ccatgtgtat ttggaaaagt ttacctaatt agtccagtga caatttatta 1560
tataatttca ttagatccag cttttaaatt ttgctccatt cttttatata tgtattcacc 1620
atgcccggct aatttttaga tttttttgtg acagggttcc accatgttgc ccaggctggg 1680
ctcaaactgc tgggctcaaa tgatgtgcct gcttcagcct cccaaagtgc tgggattaca 1740
gacatgagac accgcacatg gcctattact attcttatgg gtttcagctt ctcatgtga 1800
attgcttcat atattttgag gctgtttcag agctgttata atcctgaatt gctccattta 1860
tcattgttaa aagcttactc tttattccca cactcccttt attattttac cttaaaatca 1920
attttaaggt aattccaaag caaaatcaat tttatctgat tgtcacttct cttttgatag 1980
atttttagta tatcttttcc aatctatttg taactattac atcattatgt ttaagaagtc 2040
tctgtaacct tttttttttt tttttttttg tgattctcct gcctcagctt cccgagtagc 2100
tgggactaca ggtacacgcc accacgcctg gctaattttt ttttttgtat ttttttagtag 2160

agacgggggtt ttaccatatt ggccaggctg gtcttgaact cctgaccttg ttatccgtcc 2220
gccttggcct cccaaagtgc tgggattaca ggcgtgagcc acccgctccc caccaaagtg 2280
ctgggattac aggcataagc cacggcaccc catgcctggc ccacatgtgg tctttaaact 2340
tgcaagttta tggacttat tgtaactact tagatatitg gatttgttat tttgtgattt 2400
ttttcttcgc ttctctgttg cctttaacag ggttcatttt attaccatgtt gtttcttcct 2460
tatttatcta aatttaacct gatttttgcc taatacaca atactttcag gtttatactg 2520
ctttatcacc acagctggac acaactgggt tcatactgcc ttctagcaat tgcaggatgt 2580
ctgaactccc ttgaacctat ttccttacct tttaaaatgg taaaattttg tggataaaat 2640
attgggtaca atcagacaat cacctctgaa aggttacaac tcttacctca ttaatcagta 2700
ggaacagggt tttgatttaa agcaaaactc tatctcattc ttccaaactc aggagttagc 2760
aaaatgggaa tgaactgcca gttattcagc cttctagact ttattcgcatt ttgtttaaag 2820
tgcataggcg tataaacact tttctggatt gaggatccaa atccttcaaa tttcccaagt 2880
tgtccaacca caaaaaatt attaagcacc aaatgctcca gtctagaccg gggacctcaa 2940
ccattttctt ttcccaacat gctaagctat ttgacacatt tttattagga acagcaattc 3000
tcaaaactga ggagctatta tcagaatcac tggggcagga agcgtccatt tgcctgttga 3060
gaattttctaa agtcttaaaa ttcatttatt cctgggttgt tctctaaca caatacttcc 3120
aacattagca aagtactatt ttagttttca gaatcaatag tatctgaagg tttgaaaaat 3180
ttcccagggt acttaaaaac cctcattgcc aagtaaattt ttataaatga acttgatgat 3240
ctgtccacag accatcatca aatcaataaa gttcaatagg tgaaaattaa acctcagggtg 3300
tgcaaaattc atgggtcaag gagtaggtag acatatttat tataattaca cgattgttaa 3360
caatgtgtac tgccatccaa aaatgaacat ttattgctac tttgttcact agcataaaga 3420
tgcaatttac ttacatagaa aatattttat atgctttgat actgcatgt gtaaacattc 3480
ttatggatat gtttgtgaac taaaattgac aaatacatat tcctatgtta ccaacttaag 3540
atcataaacc attctcatgt ctgctcatta aagctaaagg gtctatt 3587

<210> 1331

<211> 4154

<212> DNA

<213> Homo sapiens

<400> 1331

ctgcgagccc	gcgagccagc	gagctgcggc	tgcggcctcc	cctgcgcgca	gctacccggg	60
cgtcccggcc	cgcggccccg	ctaaccccgg	ggcccgcgcc	cccgcggcag	ggatgcatca	120
tggccacgct	ggcttgccgg	gtgcagttct	tggacgacac	ggaccctttc	aacagcacca	180
acttccccga	gcccagccgg	ccgccgtgt	tcacgttccg	cgaggacctc	gcgctcggca	240
cccagctggc	gggggtccat	aggctgctgc	aggcgccgca	caagctggat	gactgtactc	300
tgcagctctc	tcacaatggc	gcctacctgg	atttggaggc	cacctggca	gagcagcggg	360
atgagttgga	aggcttccag	gatgacgccg	ggcggggcaa	gaagcacagc	atcatcctaa	420
ggacgcagct	gtctgtgagg	gtccatgcct	gcatcgaaaa	actatacaac	tccagcggac	480
gagatttgag	aaggggccctc	ttctccctga	agcagatatt	tcaggatgac	aaggatttgg	540
tgcataaatt	tgtagtggct	gaaggtctga	catgtttgat	caaggtggga	gctgaggctg	600
atcagaacta	tcagaactac	atcttaaggg	ctttggggcca	gattatgttg	tatgtggatg	660
gaatgaatgg	agtaataaac	cgcaatgaaa	ccattcagtg	gctgtacact	ctcattgggt	720
caaagttccg	cctggtgggtg	aagacagccc	tgaagctgct	gctcgtcttt	gtagagtact	780
cggagtccaa	cgcacctctc	ctaattcagg	ctgtcactgc	tgttgacacg	aaaagagggg	840
tcaaaccttg	gtcaaatatc	atggaaatcc	tggaggaaaa	agatggagtt	gatacggagc	900
tactggttta	tgcaatgact	ttggtgaaca	agacgttatc	aggactacca	gaccaagaca	960
ccttctacga	cgctgtggac	tgccctggagg	agctgggcat	tgctgctgtg	tcccagaggc	1020
acttgaacaa	gaaagggact	gacctggact	tagtggagca	actcaacatt	tatgaggtgg	1080
cgctcaggca	cgaggatggc	gatgagacca	cggagccacc	ccccagtggg	tgccgggacc	1140
ggaggagggc	cagcgtgtgt	tccagtggcg	gaggcgagca	ccggggcctg	gaccgcagaa	1200
ggagccgcag	gcactcgggtg	cagagcatca	agagcaccct	gtcggccccc	accagtcctt	1260
gctcccagtc	agctcccagc	ttcaagccca	accaagtgcg	agatctgcgt	gaaaaataca	1320
gcaatttttg	caataactct	tatcactcct	caagaccctc	atctggatcc	agtgtgcccc	1380
ccacccccac	atcatccgtc	tcacccccac	aggaggccag	gttggaagg	tcatcaccga	1440
gtggtcttct	cacatcatcc	ttcaggcagc	accaagagtc	actggcagca	gagagagaga	1500
ggcggcggca	ggagagagaa	gaaaggttgc	agagaataga	gcgggaagaa	agaaacaaat	1560

tcagatacaa atacttgga cagttggcag ctgaggagca cgagaaggag ctgagaagcc 1620
ggagtgtgag ccggggcaga gccgacctct ccttggacct gacctcgcca gcagccccag 1680
cctgcctggc tcctctgagc catagcccct catcttcaga ctctcaagag gctctcacgg 1740
tgtctgcctc ctccccagga acccctcacc atccccaagc aagtgccggg gatcctgaac 1800
ccgaatcaga ggcagaaccg gaagcagagg caggggaggc gcaggttgct gatgaagctg 1860
gccaggacat agcctctgcc cacgagggtg cagagactga agtggagcag gcactagagc 1920
aagagccgga agaaagagcc tccctcagtg aaaaagagag gcagaacgag ggggtgaacg 1980
agagggacaa ctgctctgcc tccagcgtct cgtcctccag cagcacgttg gagagggagg 2040
agaaggagga caagctctcc agggacagga caactggtaa atgaagcccc ttgtttcagt 2100
cggcatgtgc caggagggcc tggggtgcag gggctggttc tctaagagct tgtccacagg 2160
ctggcctctg aggtgacctg ggtcaacca ctcatgtggc tgtgtcaccc agtgtctggg 2220
gacaaggagt gtggccacgc tggcagccag ccagcagcct tctgccctgt agaaagacag 2280
ccccaaact gtctgccaca ccatcacatt catcacctcc acacctgggg aaaagggcc 2340
cgataaggag ggcttttcct gaggaataag ccccaggaga gaaacctctc acttccccct 2400
gactgttcca ttgtgaataa tagtaagggt gataatagta aggctttttc cgtttttgat 2460
ataagtttag aaactgtcac attgtcatct attcctttaa aaatgtgttt actgaagtgt 2520
gttaatcatt ttgactggac atttcagact gggaaagatt tgtttaaatg gattgaatga 2580
gtatttccaa aaaattgtac acagtttact gaggtcaatt tgatgtactg gaatatagat 2640
aatttgtttt ctatattaca ctcataacta ttcttttctt tgtataaagt atatgctttt 2700
tcttatggaa gtatatcttt ttgatgttac acttaatact cattcagttc tcctatgaat 2760
ggtaacttta gaattaggga ccaaatggaa tgtagatta taggtttggg ttagcctgaa 2820
agaacctcac caaggacttg agaagggtgc cacagagggt tataggaatc gtgaataatt 2880
catatgatct gtgacaccac aggattactt ttcctacca tgacttgtgt gctatcaagg 2940
tggtagaatg cctccttcct caacaacac tcctaaccag tggagtcatg tcttatgggc 3000
cagcctttct taagctacat atgagtggca cccactcgag tcgatgtctt aggcccaaag 3060
ggcaatatga cacctctaca aaggcctgcc aaccagtgcc atgacctatg aatggcttat 3120
tcattcctag attaaaaata cattgtctca gaagcatgga tgaacgaatg aatgaaacca 3180
gaatgtcttc caatagacct gtcagtcaat ggcgtagtct aaaatagtta ctatttgat 3240
tttttcccag ttagaatata ctactagatt ttatgcttta tattgctggg cactatgatg 3300

cagtaaaaac aagaagataa aagactttat tagtttacat cttaggaatt attgcattga 3360
 aaatccagtg tcttcatttg gttgaatatg tatgtgccaa gaggtattat atatactgat 3420
 atttacttaa tttctttcaa agtcagatta cagttgggtcc cccaaattct tcttatcatt 3480
 catattaatg taattattgt cataatactg ggtgtagggg aagtcttatt gatcagattg 3540
 gtcttaaadc atgttttatt tattaggaat agctttaaga attattaatc ataactgggt 3600
 ttagcaggcc taaaacatat caagaaattg gattagtaaa aatataccag gcgacagggc 3660
 tttcttggat cagattgtcc aatattcttc caaagaagga caattttcca aaagtggaaa 3720
 ccgttcccag tgaagaacca ctgactttct accaaagtgg gcaatgtcca agtatttaga 3780
 agcagaaaatt agggctttgc aatgattttt ctgctttgct tcagtgtgtg tatgagagtt 3840
 ggtcatgttt atttactgta gcttattggg tcctaaaaaa tctcactgct cacaggcatc 3900
 atcagccact gtggagtccg ggcagctatg tcattatagc tcttgctttt cagagtgtgtg 3960
 tcaaatacaca gagcaacctt agagataaaa aattattctc aaacgtattt ctaatgatta 4020
 tgtcaaaaat gaattttag gacttgaaaa agtctcattc cagttatgtg gtttaatttt 4080
 tctttgttta atgtgttcta ctttagggca tgcattgtgag aagctttatc ataacataca 4140
 ttttactttt ttgt 4154

<210> 1332

<211> 3828

<212> DNA

<213> Homo sapiens

<400> 1332

ttactcctcg tggggctgca ggctggagcc cgaggttggg cgtctgcggg gctgggctca 60
 cagctgctcc ctttgaggct gcagtcggcc cttctcgctg tcctcacaca gtggagagag 120
 gtgggagctc tttggagcct ctttcataag ggccctcatc tcattcgtgg ggcccccatc 180
 ctcatgacct cacctcccaa aggcgccacc tcctcacctt gtgggtgagg atttcaacat 240
 gtgggttagg gggacagcag tggtgagtgc acagcaccac actcccacat gcaccacgt 300
 cctctctccc cttcccatgg gccccggctc tgcttgtgta gctcagattg tcttgttgca 360

tcattcttgct gcctcacctc cctgctaaaa tgtcagctcc tcaagagtgg ggaccagta 420
gttccccacct gctgtctgct gctcctttct catgccaaac acagctgggtg cttaacgtgt 480
atctgcaaca cacgggagac agatgcgggc agacataccc cttccttggg gctcgcatat 540
gtgcagggaa agcagttgcc gcacgttggc cacgttgcac ggttgtccat tgggtgattca 600
gttgttgctg ggtgtctgct gtgtgcctgg cacggtgtag tgctggggat atactgtcaa 660
caaaatgtgt ttgtatttta tattctagct caggggcaga caataagctt atgaatatac 720
aggacactag agtgagtgcc acatgtcgct tttgtcctga ggccctcctt gaccaacact 780
aaagtgacca ttccagccat gctttacgtt agtgtcctgt ttactcacc tcacctcaaa 840
tgtgtgttca cacatgtgtg tactgtctct cccacaccc gacaggcatt tccactgatg 900
ggaacagagc cttttgggta ttgtcatcac ttaaaccagg gccaggctta taaccagctt 960
gcggatgttc gctgaatgaa tggactctcc tccagctctc tcctgggtca cgtgtctttg 1020
tgaatcttcc agaccacgtg ctttgctttg gttcagtga agaaggaaaa gttgataact 1080
tcataattga acctgtgttt atacatccat tccccacct acttgctcag tcagtatcct 1140
ctgggctcag ctctctgtgg gttacccatg tgggctattc tcattcctac caggcagcta 1200
atcaggccca ttctgtgcc agtgcacgga ggggtgtaggc cagaagagga ctgtgccaaa 1260
gcaggctgca ggtttacaaa ccacgtgtcc ctgctcaggg tgttggtga ggctggctcc 1320
tagtcacagc ctgctcagga atggacggat ggtggatgcc atgaccagc ctgggtccaca 1380
gatggggcgg gatgaatgtg ccagactttc cagagaagaa cagtccagga gaccctcagc 1440
ataaagtctc ctgaaaacaa cacagtctga cagtcctgaa ggccagccct gtctttgcag 1500
ggacttgtag agaacacat tcccagctcc ccattttaca gaagggaaaa ctgaggccca 1560
gagatcggat gaagcttagc aacacaagca aaatctgtat tgtccatggc tgttcagaag 1620
cattgcggtt acctcaccag gcagtgttga agaggctatc acagaagcct cagggtagtg 1680
gttttcaata ggtgccccca aaccactggg gttcctttaa atggtccttg caagattgtc 1740
cccagctcac tgaatcagcg tgcgaactcg gattcactta cagctggcat tcaaaaggag 1800
acacagggct gtgacttggt cacaagatca ggcaaggcac aaaccagctt gtagtggcag 1860
cttgaggatg gcatcaggtg gtgattgtaa ttatttttag agttacaaga tcctgggtaa 1920
agtgttaaaa tgccaatagc cacaacacag agtatcttct tagagaacca agtgagagtc 1980
tgttgagtca agtcctagga tgtggatggg gactaggaga tcacatgtga tagtcccctt 2040
cagagcacag tctgaacagt ctgaacagga aggaggactt cggaggcatg gtagccacgg 2100

aaacgtgagc ctcacctctt cagtgtgtgcc cccagaaatc cgccaccact gcacgtgctt 2160
cccagtgcac catggacagc accgctaagc tcccagttca ggactgttcc tgggagacac 2220
ggggccctcc gagtatgcat ctgacagcct ggctgagcgc acctagaaat gcagtgacagt 2280
cttagatgta ccccaccttc gctgcccccc tcccctgtgc cctaactgtg ttgatgtcct 2340
ccagtgctcc cagctccctc ccgcccctccc tgtcttccct cacaggctta gtcctaatac 2400
aatctcttac ctagctgttt ccatctggat gtctgttctt cagaggatgc cagtaaacac 2460
aggaggccat gagctcacc caggggggttc cattgtcccg agcatctttg gagcagccct 2520
catgtgtcat ggggtgtgtg gctgcctgtc tctgtggttc ctggtgattt gggagctcgg 2580
gagccacggg tcactcctta gcatcatgtg cacaggtcac aaagtggagt ccaactctcc 2640
cagccttctc aggcctccag tgtagtggga agctctgaaa gtcagggcag cctggcttca 2700
cgtcaaggcc tttgtggagg gaggcaagtt aacgagcagc ctccctgcca cctgccagtc 2760
cctactcagt gccgcccata cctgtgtgtc tgtgcctgtc cagagccata tggctccctg 2820
ggatttgagt ctgctgtttc tcctctctct ctctgcaggg gtgctgatgg tctgtatagt 2880
gattggtgct cgaaagctcg gggtaaccc agacaacatt gccacgcca ttgcagccag 2940
cctgggagac ctcatcacac tgtccattct ggctttgggt agcagcttct tctacagaca 3000
caaagatagt cggatatcta cgccgctggg ctgcctcagc ttgctggctc tgaccccagt 3060
gtgggtcctc attgccaagc agagcccacc catcgtgaag atcctgaagt ttggctgggt 3120
cccaatcatc ctggccatgg tcatcagcag ttctggagga ctcatcttga gcaaaaccgt 3180
ttctaaacag cagtacaaag gcatggcgat atttaccccc gtcatatgtg gtgttggtgg 3240
caatctggtg gccattcaga ccagccgaat ctcaacctac ctgcacatgt ggagtgcacc 3300
tggcgtcctg cccctccaga tgaagaaatt ctggcccaac ccgtattcta ctttctgcac 3360
gtcagaaatc aattccatgt cagctcgagt cctgtctttg ctggtggtcc caggccatct 3420
gattttcttc tacatcatct acctggtgga gggtcagtca gtcataaaca gccagacctt 3480
tgtggtgctc tacctgtgtg caggcctgat ccaggtgaca atcctgtgtg acctggcaga 3540
agtgtgggtt cggctgactt ggcaccaggc cctggatcct gacaaccact gcaccccta 3600
ccttacaggg ctgggggacc tgctcggttc aagctccgtg ggccacactg ctgctgtgcc 3660
aagaaggtgt acagcctccc caggatgggg cctcatacaa cccttcatct gcactcaaca 3720
tttaatcgtg tccttgctgt ctttttattt tcctttttgt ttgttagcaa aaacctctat 3780
ttagatttca ataatacagag aagtgtaaaa taaaacagat tatattgt 3828

<210> 1333

<211> 4317

<212> DNA

<213> Homo sapiens

<400> 1333

atgccacaca	tcaggtgact	ctttagaact	aaggaagaat	cacaagaatg	gtccaaacac	60
tgaaaatatg	aatttgaag	cgtttgattc	agtatttattc	aaacaaacaa	gcctgtctgt	120
gagtagagag	gtcagcctag	agttatcaga	ggaagattct	gacattgact	tagctctaac	180
aatatcacca	cctacaagtc	ccagagaaga	aatgccagct	ggtgaaatag	agcaatttga	240
ggaggcccca	ttctcaaatt	tagaacttca	ggatgtagct	gaggaaatag	gtgaaccgga	300
agaggtggct	ctcacagaaa	gcagagaagt	gagttctgct	gacaatgtgt	cagtatatcc	360
ctcagtgica	gaagaaccag	tagaaaataa	ggagagaaaag	ggggataatt	tacaaccagt	420
tactttaata	ctttctaaag	aaaattgcac	ccttgagatt	gcagaggaaa	ttaatgtgac	480
ctctgatttt	ccctttgatt	ctgtaattga	agaagtatca	ccagcgtcta	gtcctgaacc	540
tccagtacca	gttaaagaga	cacgaccata	tcaggctgtg	actccatgca	ttttaaaact	600
tcatggtaca	cagtgtgaga	agagcaacca	aatctcccaa	tgtgagtcag	aagacttagg	660
cataacagaa	aaagaaaatg	tttttgttgg	tcctacccat	ccagtggggc	aagataactt	720
taccaggtta	caacaaatgc	aggtctctgc	cgaaatgcct	ctaataataa	ctgatcatcc	780
aggaagaaca	ggtagaccaa	cccttcctgg	taaagtaact	gaggaaattg	tctcaagtga	840
gcatgatgag	ggtttatctt	tctcaggaaa	ggtgcagtgc	tatggtaggg	agttaaacca	900
gcctgcctca	gctgccaaat	gcacaggtga	cttcagtcct	tctcctgaaa	aactggtaaa	960
atcaggaaat	ccattgcagc	cagttagtat	agagaataga	aatttggact	taaaacatct	1020
tgtcttggag	tccagtgaac	ctccatttgg	tcctagaaat	gttattgaaa	ataagtcttt	1080
gtctgacaca	ttggtttcca	caactgcacc	aagtgggtata	gtgaatgtgt	cagtaaaaca	1140
gcagactagc	cctaaaagca	gtcagaacca	tctctttccc	ggtgatttga	aaacagatgg	1200
aggcatttat	ctgcaggtga	agtccttgac	agctgcctcg	gttgatggag	cttattctac	1260

acagggatgc atgtgctcag tgggtcccccac gctttgttct tcctcagaca atgctacatt 1320
aaccattat gtaagaccaa taaatgcaga gccagcgttt caagcacagg aaataccagc 1380
aggcagaatg gccagtttgc ttaagaatgg tgagcctgaa gctgagttac ataaagaaac 1440
cacaggcca ggcaactgctg gccctcagtc caacaccaca tcttctctaa aaggtgaacg 1500
caaagccatc cacacgctgc aagatgtgtc aacatgtgaa acaaaggagc tattgaatgt 1560
cgggggtttcc tccctttgtg ctgggtcccta ccaaaataca gcagacacca aggaaaacct 1620
cagtaaagag cctttggcct cctttgtttc agaatccttt gatacttctg tttgtggaat 1680
agccacagag cacgtagaaa ttgagaacag tggggagggg ctcagggctg aggctggttc 1740
tgaaacccta ggcaagatg gagaggtcgg tgtgaattcc gacatgcact atgaactctc 1800
tggagattct gatctagacc tgcttggtga ttgtagaaat cccagactgg atttggagga 1860
ttcttatact ttaagaggta gttacaccag gaaaaaagat gttccacag atggctatga 1920
gtcgctggtg aacttcaca acaacaacca agaggactgg ggctgctcta gctgggttcc 1980
aggcatggag acgagcctcc ctcccgggca ctggactgct gcggtaaaga aagaagagaa 2040
gtgtgtgccg ccttacgtcc aaatccgaga tctccacggg atcctcagga cttacgcaa 2100
cttctctata acaaaagaac tcaaagatac catgagaact tcacacggcc tgaggaggca 2160
cccagtttc agtgcaaact gtggcctgcc cagctcctgg acaagcactt ggcaggtggc 2220
agacgacctc acccagaaca ctttagacct ggagtatctg cgttttgcac ataaactaaa 2280
acagaccata aagaatgggg attctcagca ttctgcctcc tctgccaatg tctttccaaa 2340
ggagtcacca acccagatct ccattggtgc tttcccttcg acaaaaatct ctgaggcccc 2400
atttctgcat cctgcaccta ggagcagaag ccccttctg gtaacagttg tggagtcaga 2460
tcccagacca caggggcagc ccaggagagg ctacacagcc agcagtctgg acagctcttc 2520
ctcttgagga gagagatgta gtcataatag agatcttaga aattctcaaa gaaatcacac 2580
tgtttcattc cacctcaaca aactgaaata caacagtact gtgaaggaat ctcggaatga 2640
tatttcactt attctcaatg agtatgctga attcaacaag gtgatgaaga atagcaacca 2700
attcattttc caagacaaag agctaaatga tgtttctgga gaagccactg ctcaagagat 2760
gtatctgcct ttcccaggac ggtcagcctc ctatgaagac ataatcatag acgtgtgcac 2820
caatttgcac gtcaactaa gaagtgttgt gaaagaggct tgtaaaagta ctttctgtt 2880
ctaccttgtc gaaacagaag acaaatcatt ctttgtaaga acaagaacc ttctgaggaa 2940
aggaggccat acagaaattg aacctcagca cttctgtcaa gctttccaca gagagaatga 3000

tacactaatc atcatcatca gaaatgaaga tatatcatca catttgcac agattccttc 3060
tttgctgaag ctgaagcatt tccccagtgt catctttgct ggagtagaca gccctggaga 3120
tggtcttgat cacacctacc aagaactggt tcgtgcagga ggctttgtga tatcagatga 3180
caagatacta gaagctgtaa cattagtcca actgaaggaa attatcaaaa tcctggaaaa 3240
actaaatgga aatggaagat ggaagtgggt gcttcactac agggaaaaata aaaagctaaa 3300
agaagatgaa agagtggatt caactgcaca taagaagaac ataatgttga agtcatttca 3360
gagtgcacaa atcattgaat tgcttcatta tcaccagtgt gactctcgat catcaacaaa 3420
agcagaaaatt ctgaaatggt tgctaaacct gcaaattcag catattgatg ccagggtttgc 3480
tgtcctccta acagacaagc ctactatccc cagagaagtc ttgaaaata atggaatcct 3540
tgttacagat gtaaataact ttatagaaaa catagaaaaa atagcagctc catttaggag 3600
tagctattgg tgactcaact acagcctgcc tggatatgga tgatgccaat aaaaaattag 3660
tattttccct ttggaaaact tgtgaacatg tgaatacaca tgtgaacagt cttacatttg 3720
aaaaaccaat gttctacaac ttggaaagtt ttcatttttt atattttgct gaaatatgtc 3780
acagtggcat tgcagttgtc tgtagctttt gggttgcagt gctagatatt gttttaaatt 3840
attttcattt taaacaagat gccttctaag ctattgagct tattaataat aattttacat 3900
gtttacttag ttggagcaaa aataagtcta ttttaacaaa tagctttggt tttgcatgct 3960
aatgtcagaa aggcatacga tgcacattat gctgttttaa aggttttacc acccttgtaa 4020
aaactataat cttaaaggt tttatttgct gttacacaaa caaactaca taaaacattt 4080
tttcctaaat ggtacaaatt tataaactat catttttcac ttacggtatt tgtaaatact 4140
acactacaaa aatcagcttt ctgagaaaga aataatcatt tatttatgat attgaaaatt 4200
tctacagtaa acactcaaaa ccaagcaaaa aacatttgta agatacacgg tatctatttg 4260
gagcaacggt ttttgtaact aatgtgtttc attttttaaa taaagacaac taaaaat 4317

<210> 1334

<211> 4166

<212> DNA

<213> Homo sapiens

<400> 1334

ataagacact attctaagca ctgggggtccc ataagaataa gacaaagccc ctatcctcaa 60
gaggctatca tcaaactata gacagagatg ggatctccct ctgtcatcca ggctgggtctc 120
caactcctgg cctccagtga tctcctgtct tcagcctcct gagtagctgt gattacaggt 180
acaagccatg gcacctggcg agatgacatt ttgctggagg aaagggagat cttctaagag 240
caaagagctt tccaggagct gggaccagga ctatcacaga ttgccctatg tcgtccatgc 300
tggtctggaa ctctggggct caagagatcc tctcaccttg gcctcccaaa gtgctgagat 360
tacagagcta gagtctcatg atgtcgtcca ggctgggtatc gaactcgggt tcaagcagtc 420
ctctcacctc agcctctcga gtagctggaa ttacagttga gagccactgc atccagcttt 480
gctctttctt tgaaaggagg caaaagaatg gacgggcacg gagatcctag aggcgaagca 540
agttgtcagc gcccctgccc aggccccgcc ctgcccggcc cagtcccgac cccgccctgc 600
cccgccccag cagctccacc ctaccgggt ctctcgcgcc tccagcagct tgcggtaggt 660
ggcgatctcg atgtccaggg ccatcttgac gttgaggagc tcttggtact ccctcaggtg 720
ccgcgccatc tctcttttta gctgtcgcag ctctcctcgc agccgcgcag cgcccgccctg 780
gtagcccccc gcctccaggg cgaactgctc ctccagctct ctcaactgcc tgagcagcgc 840
ctcgttctgg ggtaggagag tggaaggggc cagttgcaga acatttcacg gtccgctccc 900
cgggccccgag cgcgcagctt cgtactcacc gtgcgcgcga gcccgtccac ctgcgcagtt 960
agactctgga tctggcgctc ggactcgttc atctcctgct tggcctggcg cagggcctcg 1020
tggttccggt tggcagcgtc ggacaggtcc gcgtactgag aagtgggggt aaccaggt 1080
ttagtcggct gggacgcgcg acaccacccc agcgtccgc ctcgcaggcc ctcccggctc 1140
ttgcacctg gacttgtagc actcctccgc ctctgcagg ttcttcgcgg cgatgctctc 1200
gtactgcgcg cggatgtccc tcagcgtgc cgtcagctcg ggcttcaccg tggcttcac 1260
ctccacctgc tgcacctgct ggctctccac actcacctgc aggtctcgca gctcctacgg 1320
ccgggagcag gcagaggatg gacagcggcg caaatccac gcgggcccac cagttcgtgc 1380
acagaaaaga gaagaaacgc ttgaacgaac agaagtgggc gccagggagg gcagggcgta 1440
cagccctgcg ccccgcggg cgcgagacca gaggccaggt ttcggagctc cagcgagacc 1500
acccacaac ctcagaaacc gccctgata ccgggcccac ttacctctc gtgcagcttc 1560
ttgaggaact caatctcatc catcagagac tcaatcttgc gctctagttc caggcgggac 1620
agagtggcat cgtccacgtc cttcgagggg tggcagtgga ggttcaagat aagttagggg 1680

ctgcgcagac caaggaagga ccaggccttc cctgtctgcc tcaggaggca tctgggttac 1740
cccccttctcc ccgcgcccac cgatgccacc tctggatact gagatcgggg gtagcggttg 1800
ggaggctgaa ctcggagagg ggctcggact caccttgcgg aagagcacga ggttgtgctc 1860
cgcgctcctcc cgcttgcgcg tctctctctc caacctgacg ggaagagcgt gcagaggctg 1920
aactgcgggg tgcgcgcca gctcgcaccc cagaccgcac gccccccagg atccggttag 1980
aggctgttct gctgcccagg actctaaatg gagggctgag gctgtctaata ggaattgccc 2040
cgcatgtgtct ctaacggact gggagctgaa aaggggggttt cctcattact caggggaggc 2100
acagataccc acttctccca cctccccaaa cactcagagc aaaggggtag cggggggcac 2160
ttggagcccg tgggcaggga tgctgcccgc acacacctgg gttggtaagg ggagccacac 2220
ccttgggctg ctgatggaga ggggaagcga ggggaggcaa gagcagccgc ctcgacggcc 2280
gcttcgacct cgctcgcagc gcagcggccc agccctgccc cctgacctct gcttgagcgc 2340
cgccaggctc tccgccagcc cgctcgcgctc cacctgcacc cggtcacgct cgcgggccaa 2400
cagctccagc tctcgcgca gctcgcgcag ctctgctgg cacagctggt cggcgcgcgc 2460
cggctcctgg ccccgggctt ggctcagctc cccgcgcagg gccgcgttct gctgctccag 2520
aaagcgtacc ttctcgatga agttggcgaa gcggctcgtt agctcctgca gctcctgctt 2580
ctcgttgctg cgcgtggcca ggaactcctg gttgagggcc tcggccatgg agaagtcgag 2640
gcgctccgag ggcaggcgca ggaggcgcc cgctcccgt cgggggctac ggaagctgcc 2700
caggcgcacc gaggagctcg gggacgcgga gccagcagg cggctgctgg agaagcggga 2760
gctggacgag taggagaagg ccccggggga tagtgagggc ggtggaccga agacggccca 2820
gcagaggttg tctgctgatg tttcagcctt aaagacacag ccccaaacc tagacctacc 2880
ccgcaacaag cccaataag cttccagaat gcaagcaca cctgcccagg agtggacaga 2940
ggcagctcgg atggtctgca ggagccgggt tgctgaggct tgctgggttt gccaggaacc 3000
atagggtcgg ggctgctgct gctgctgggg actccagcgc tgtcctgtga gacaggtctg 3060
cctcagatgg gacctgagga caagagagt catctgggga agcaggtttc aggttcctgc 3120
ctggatatct ggctgggggt aaggaggcg gctccctggc tggccagctc ctcagtattg 3180
cagggcagca gccccctccc ccttttgtgc gtctgtgag atgggccagg gccaacgccc 3240
tgctcacgct cctaccgct tcgtctcctt tccaggcccc tccttccttc cgggccatta 3300
gtctctcct gcacagctgc cagttccttc tcctgatgg gtctggtttg gttgccaggg 3360
gagtgggaag cgggaggaag ggagagatgg gacaggacga ataaatgaca gcttggcctc 3420

ccctaactcc tgggaattgg gaggggtagg gtcccacccg ggatagggcc gggaggcttg 3480
 gtgggtgtga ggaggggcta gggaagcctt ggtgcttcct gccgcagtcc tgggcactga 3540
 gccccagctg ctgttggcct ggagcccat ctatcccgga tttggcccca ccctccagga 3600
 gcagggagcc agctctgcat caggagagggc gggcaaggcc tggggaggac cagctcaggc 3660
 cctgtctaca gggcactagt gggggaccca agcctctgag agtagaggct gctggggctg 3720
 cagctgggcc tggggagttc cagatggagt tcccgtctc accctgctta agggctccgc 3780
 tggccaccta catgcctcgg aggagaaggg acagagggct gccacagcag ggctctggag 3840
 ctgtggatca ggcctgggtg gggaactgcc aggcagaaga ggctcctccc ctaaagcaga 3900
 aggagcaggc cagcaactcc aggcggagca aaggtaggca aagagtctgg gttaagagcc 3960
 gggctctggc atccagctgc cacacttccc atctgatcca ccactctgtt gtagaattta 4020
 ggctcgtcac tacgtccctt catgtccctc aagaaaaggg agataactaa ctgtagcttc 4080
 tacctcatag tgttgttggg aggactaaag gaataaataa atacatgtga agtgcttagg 4140
 acacacatct taaagcctga aaatgg 4166

<210> 1335

<211> 4885

<212> DNA

<213> Homo sapiens

<400> 1335

atatctcaga gttaaaagtt gcaaattatg ttattggaat tctgagaaca atattgattg 60
 ctgcttcattg ttacactaac ttacttttt aaacttctga aacgatttca tttgacaggg 120
 tggaccttaa ttaaataat gtccacaagg agagttgact cttaatgtcc cacaggattt 180
 cagaaacaca gtaaatacct ttcttctatc tattctgac tccttgctca taggctctca 240
 catggaatct ttggggcgagc tgctcattct tcatattttc cagccccaat gcccttttta 300
 taaaattggg tagctgttaa tacattgata cttggggcgca cagagttggc actcaataag 360
 tagccgttaa gtaaattaat caaaagaatt gcaagataca agatacctgg tcccttctat 420
 caaagagttt ataatcaag tatgaatgac aatacctgaa accacttaaa aaaaatctat 480

gtaaacaccg ttatatgtga catgtcagga taagagggaa caactaataa attttgtaca 540
cattcagtaa atggagagaa aggttttttg agatgagggg cttgagccag accttgtatg 600
tgtgctatta gaagctttct gggcttgaca catttaaaaa ctgccctttg atactaatag 660
tattaaaatt ctgtctcctt ggaagcagac tgcctgttgc tttagcttta aaagagattt 720
atatccaagc attgcattat gcaagccata gaaagactgt tttatgtgaa gatgcactga 780
ttgcacttcc ctctctatat ttattttag tagttgttt agagctgtct ctgtgtagag 840
tgtgaggtcc ttgaggggaag ggaccttctt ggccctcttat cccctgcata ctttgcatag 900
aggaggcact tcataaatgt ttgttgaata aatgctacac tcctaattggg taagaatgtg 960
tcatattact ctttgttttc ttatgtgtac tgaaacaaat tgtttcttga gattggctct 1020
tagaatatth attcagthtt cactgattct cttgctacag gttagctaac catgcagcag 1080
gtgcttgagt ttcaccttc tccagtcag cagaattaca ttttgatgac ctccattttg 1140
atactttag accagatcta atccgaagat taatctttag gtaacagatg gagagtgata 1200
atgataactt ctgtgaagac aaacccatgc acacattctg ttgtctgaat aatattttaa 1260
tgaatcctt tgctcccaag tcatcaactt gccccttaac acacatccct ctagagcaca 1320
aatctgagct cttttagat ctttgcctc ttactctcc agaccttct aattaatgtc 1380
ttctcagaat cgacctctg tctctcttaa tcattagtta aaagaaaaag tggcagatgt 1440
aggacctggg gataattgc cacatccat ttccttctct atgagcagga tttccaattt 1500
ccaagcctga tgggatctcc cagctggaac aggatctaca ggtctttgat ctggaaacta 1560
agactagaga agtcttaaga gatgactgct cagatggaga gaccagagaa gagaacaagc 1620
tgttgattcc taagcagaaa atttcggaag aagtgcattc atacaaagtg agagtaggaa 1680
gactcaaaca cgatattacc caagttcctg agactagaga agtgtataag tctgaggaca 1740
gattagaaag acttcaggaa attctaagga aatttctgta cctggagaga gaggtttaggc 1800
aaataacaat cagcaaggaa accttcacca gtgagaagaa caatgaatgt catgaaccg 1860
aaaaaagctt cagtctggac tctactattg atgcagatca gagagttctt agaatacaga 1920
ataccgatga caatgataag tatgacatga gcttcaacca gaattcagcc tctggtaaac 1980
atgaacactt aatctaaca gaggattttc agagtagtga atgtaaggaa agcttaatgg 2040
atctctcca ccttaataaa tgggagagca tccctaacac tgagaaatcc tataaatgtg 2100
atgtatgtgg gaaaattttc catcagagct cagcccttac tagacatcag agaatccata 2160
ctagagagaa gccctacaaa tgtaaagaat gtgaaaagtc tttcagtcag agctcaagtc 2220

ttagtcgaca taaaagaata cacactagag aaaaacctta caaatgtgaa gcatctgata 2280
aatcctgtga agcgtctgat aaatcctgta gtccaagctc aggcataatt cagcataaga 2340
aaattcacac cagagccaaa tcttacaaat gtagcagttg tgaaagagtc ttcagtcgta 2400
gtgtccacct tactcaacat cagaaaattc acaaagagat gccctgtaag tgtactgtat 2460
gtggcagtga cttctgccat acttcatacc tacttgaaca tcagagggtc catcatgaag 2520
agaaagccta tgagtatgat gaatatgggt tggcctatat taaacaacaa ggaattcatt 2580
tcagagaaaa gccctatacg tgtagtgaat gtggaaaaga cttcagattg aattcacatc 2640
ttattcagca tcaaagaatt cacacaggag agaaagcaca tgaatgtaat gaatgtggaa 2700
aagctttcag tcaaacctca tgccttattc agcatcaca aatgcatagg aaagagaaat 2760
cgtatgaatg taatgagtat gagggcagtt tcagtcatag ctcagatctt atcctgcaac 2820
aagaagtcct caccagacag aaagcctttg attgtgatgt atgggaaaag aactccagtc 2880
agagagcaca tctagttaa catcagagca ttcataccaa agagaactca tgaatgtaat 2940
gaagatggga agatatttat caaattcagg cttcattcag catctgagag ttcacaccag 3000
ggagaaatca tgtatgtact gcatgtggta aagccttcag tcatagctca gccattgctc 3060
agcatcagat aattcacacc agagagaaac cctctgaatg tgacgaatga agaaaaggta 3120
ttagtgtaa actcttaatc gactcctgca aatctatacc agtgagaaat cttataaatg 3180
tattgaatgt ggcaaatttt tcatgctatt agtatittca taccttagtc acatttggag 3240
aattcacatg ggaataaaat tccattgctg caatgaatgt gaaaaagcca tcagtcaaag 3300
aaactacctt gtttagtata aaattcacgc catgcaaaaa gattataaat gtaataagca 3360
tgtatgtgtg tgaggagatt cagtcataac ccaacgctca ttcaacatca aagaatttat 3420
acctaagaga acttatttgg gtgtagtaaa tggcagatct ttcaatagga gtttaactag 3480
tctttgtcat atcagaatat ccatagtaga caagaatttg atgtaacgca aatggaaaaa 3540
ctcgacacca catttcaggc tttacccaac atcgaaataa tggagagaaa attgttgatt 3600
atttgtttat gaaattgtta atacatagtc ccaatctttt tcattgcaca aaaatctagg 3660
gttgacttgg taaatgcagt gacattttct catggagttc ctttatttaa tatgtattct 3720
aagtaggtac gtttattttt acttttttat tataattttg atattaaaaa gaacagagat 3780
ggggtcttgc tttgttgccc aggctggtct tgaactcctg gcctcaagcg atcctccac 3840
ctgtcctccc aaagtgtgtg gggttacaggc gtgtgtcact gtgctgggcc tattttattt 3900
atagaactca ttttaagctgt ttttatttta atatgcccta taaacatttt tatatttttt 3960

gaaattgggt cttagtgttc acaacttcca taagatactg ctaatgcacc agtattaaaa 4020
 cacatcgacg taagtagctc atttagcttt ttctgctgtt ctgggccc aa gttctttcca 4080
 aaaccaactc ttaggcctgc tctttactag ggatcttatg tcgtattgct ttacagccac 4140
 aacacttggg ttctgttga ttaacttctc cattctctta agcaccttta gaagatttag 4200
 aagtttccta gttttaagtg ttccaccagc aagtattcca tacctacttg atgttgctgg 4260
 tctgggtgtc tatttcctaa agtgaagcat ctttttttaa aaaagaattt gattgacaat 4320
 atatccagtc caatataagt atgaaggatt ctctctcctg agattgtagc aggagccaa 4380
 acattttcaa atgatgccc aa aggttttagc tgtcttgtgt gcatccacag tctgcgaaga 4440
 agacatgata aggacatcag ggagccaaca agactcctaa tagcctcact acattcatcc 4500
 agtgcctatt ctgcatgcct aagcttagag ttcttttata tacctctacg gccagcaaaa 4560
 tgctcaggtc tgctcttggt agggtaaaca taaagaagat acacaggccg ggcatgggtg 4620
 ctcacacctg taatcccagc actttgggag gctgaggcgg atggatcacg aggtcaggca 4680
 gtcgagacca tcctggccaa catggtgaaa ccccgctctt actaaaaata caaaagttag 4740
 ccgggtgtgg tggcacgcgc ctgtaatccc agctactcag gaggtgagg caggagaact 4800
 gcttgaacct gggaggcgga ggttgcagtg agccgagatt gcaccactgc actccagcct 4860
 gggcgacaga gcaggactct ctctc 4885

<210> 1336

<211> 6183

<212> DNA

<213> Homo sapiens

<400> 1336

ggtctcgccc ttgcacgggt cacgattata caccttcgtg acctttagcg ggcttacata 60
 tgtatctttt tgtgttccgc aggctatgac cacctgctgt atgtacaata tgtgcttgtt 120
 acatttgtag accatctccc ttctagaatt taaagaccta gctattacat cttgtttact 180
 caatatcatt ccccatataa ggaaaaaaaa aaacctacat gaactgaaca tgccatgttt 240
 caatctggcc ccagtggctt tttctctgaa agcaaacgtg tgtcttttac accagggtt 300

tctccccacc ccagggggtg tcttccatcc ttttgtggct cagttgaagg cgaaaagggc 360
tccaaaccac taactaacca gaggagagcc ccttcttcca cctccaggga gaatttcaga 420
tttaatttgt ccgaagatag cgtgctctct tcttactcat ttgccatcat tacgaggaaa 480
acaaaccacc accttggtt caagatcctg ggtagaggct cacggtcttt tcaaccatct 540
ttggcgaggc cttgcttct tccactcgag gtatgttctg tcttgtgctt tttcttttag 600
aagctactaa aggggtgttg ggatgcttct gactattatg aaggccaaaa ggcctgttga 660
ctggggctgc ttttaaccct ttcctatttg ctgagaatgc agccgtgtga cagtaactga 720
acattggtct aaagtctttc caaaaggcca aggttcacaa gaacatctgc tcaaattaat 780
gaccatgggg gatatgaaga cccagactt tgatgacctc ctggcagcat ttgacatccc 840
agatatggtc gatcctaaag cagctattga gtctggacac gatgaccatg aaagccacat 900
gaagcagaat gctcacggag aggatgactc ccacgcacca tcattctctg atgtgggtgt 960
cagcgttata gtcaagaatg ttcggaacat tgactcttcc gagggcgggg agaaagacgg 1020
ccacaacccc actggcaatg gcttacataa tgggtttctc acagcatcct cccttgacag 1080
ttacagtaaa gatggagcaa agtccttgaa aggagatgtg cctgcctctg aggtgacact 1140
gaaagactcg acattcagcc agtttagccc gatctccagt gctgaagagt ttgatgacga 1200
cgagaagatt gaggtggatg acccccctga caaggaggac atgcgatcaa gcttcaggctc 1260
gaatgtgttg acggggctcg cttcccagca ggactacgat aagctgaagg cactcggagg 1320
ggagaactcc agcaaaactg gactctctac gtcaggcaat gtggagaaaa acaaagctgt 1380
taagagagaa acagaagcca gttctataaa cctgagtgtt tatgaacctt ttaaagtcag 1440
aaaagcagag gataaattga aggaaagctc tgacaagggtg ctggaaaaca gagtccatga 1500
tgggaagctg agctccgaga agaatgacac cagcctcccc agcgttgccg catcaaagac 1560
aaagtcgtcc tccaagctct cgtcctgcat cgctgccatc gcggctctca gcgctaaaaa 1620
ggcggcttca gactcctgca aagaaccagt ggccaattcg agggaatcct cccggttacc 1680
aaaagaagta aatgacagtc cgagagccgc tgacaagtct cctgaatccc agaattctcat 1740
cgacgggacc aaaaaacat ccctgaagca accggatagt cccagaagca tctcaagtga 1800
gaacagcagc aaaggatccc cgtcctctcc cgcagggtcc acaccagcaa tcccaaagt 1860
ccgcataaaa accattaaga catcttcttg ggaaatcaag agaacagtga ccagggtatt 1920
gccagaagtg gatcttgact ctggaaagaa accttccgag cagacagcgt ccgtgatggc 1980
ctctgtgaca tcccttctgt cgtctccagc atcagccgcc gtccttctct cttccccag 2040

ggcgctctc cagtctgcgg tcgtgaccaa tgcagtttcc cctgcagagc tcacccccaa 2100
acaggtcaca atcaagcctg tggctactgc tttcctccca gtgtctgctg tgaagacggc 2160
aggatcccaa gtcattaatt tgaagctcgc taacaacacc acggtgaaag ccacggtcac 2220
atctgctgcc tctgtccaga gtgccagcag cgccatcatt aaagctgcca acgccatcca 2280
gcagcaaact gtcgtggtgc cggcatccag cctggccaat gccaaactcg tgccaaagac 2340
tgtgcacctt gccaacctta accttttgcc tcagggtgcc caggccacct ctgaactccg 2400
ccaagtgcta accaaacctc agcaacaaat aaagcaggca ataataatg cagcagcctc 2460
gcaaccccc aaaaaggtgt ctgagatcca ggtggtgtcg tccttgaga gttctgtggt 2520
ggaagctttc aacaaggtgc tgagcagtgt caatccagtc cctgtttaca tcccaaacct 2580
cagtcctccc gccaatgcag ggatcacgtt accgacgcgt ggggtacaagt gcttgagtg 2640
tggggactcc tttgcacttg aaaagagtct gaccagcac tacgacagac ggagcgtgcg 2700
catcgaagta acgtgcaacc attgtacaaa gaacctcgtt tttacaaca aatgcagcct 2760
cctttcccat gcccggtggc ataaggagaa aggggtggtg atgcaatgct cccacttaat 2820
tttaaagcca gtcccagcag atcaaatgat agtttctccg tcaagcaata cttccacttc 2880
aacttccact cttcagagcc ctgtgggagc tggcacacac actgtcaca aaattcagtc 2940
tggcataact gggacagtca tatcggtcc ttcaagcact cccatcacc cagccatgcc 3000
cctagatgaa gaccctcca aactgtgtag acatagtcta aatgtttgg agtgtaatga 3060
agtcttccag gacgagacat cactggctac acatttccag caggctgcag atacgagtgg 3120
acaaaagact tgcactatct gccagatgct gcttcctaac cagtgcagtt atgcatcaca 3180
ccagagaatc catcagcaca aatctcccta cacctgccct gagtgtgggg ccacttgcag 3240
gtcgggtgcac ttccagacc acgtcaccaa gaactgtctg cactacaga ggagagtgg 3300
ttttcgatgt gtgcattgca atgttgtgta ctctgatgtg gctgctctga agtctcacat 3360
tcaaggttct cactgtgaag tcttctacaa gtgtcctatt tgtccaatgg cgtttaagtc 3420
tgccccaagc acacattccc acgcctacac acagcatcct ggcatcaaga taggagaacc 3480
aaaaataata tataagtgtt ccatgtgcga cactgtgttc accctgcaaa ccttgctgta 3540
tcgccacttt gaccaacaca ttgaaaacca gaaggtgtct gttttcaagt gtccagactg 3600
ttctctttta tatgcacaga agcaacttat gatggacat atcaagtcta tgcattgaac 3660
attgaaaagt attgaagggc ctccaaactt ggggtataaac ttgcctttga gcattaagcc 3720
tgcaactcaa aattcagcaa atcagaacaa agaggacacc aatccatga atgggaaaga 3780

gaaattggaa aagaaatctc catctcctgt gaaaaaatca atggaaacca agaaagtggc 3840
cagtcctggg tggacgtgtt gggagtgtga ctgcctgttc atgcagagag atgtgtacat 3900
atccccacgtg aggaaggagc acgggaagca aatgaagaaa caccctgcc gccagtgtga 3960
caagcctttc agctcgtccc acagcctgtg ccggcacaac cggatcaagc acaaaggcat 4020
caggaaagtg tacgcctgct cgcactgccc agactccaga cgtaccttta ccaaactgtt 4080
gatgctggag aagcacgtcc agctgatgca tggcatcaag gaccctgacc tgaaagaaat 4140
gacagatgcc accaatgagg aggaaacaga aataaaagaa gacactaagg tccccagtcc 4200
caagcggaag ttggaagaac cagttctgga gttcaggcct ccccgaggag caatcactca 4260
accactgaaa aagctgaaaa tcaatgtttt taagggtcac aagtgtgccg tgtgtggctt 4320
caccaccgaa aacctgctgc aattccacga acacatccct cagcacaat cggtatggttc 4380
ttcctaccag tgccgggagt gtggcctctg ctacacgtct cacgtctctc tgtccaggca 4440
cctcttcac gtacacaagt taaaggaacc tcagccagtg tccaagcaaa atggggctgg 4500
ggaagataac caacaggaga acaaaccag ccacgaggat gaatcccctg atggcgccgt 4560
gtcagacaga aagtgcaaag tgtgcgcaaa aacttttgaa actgaagctg ctttaaatac 4620
tcacatgcgg acacacggca tggccttcat caaatccaaa aggatgagct cagccgagaa 4680
atagccacag atgctccatg aggaaaatcc ctgtccacat tggaataaaa aagacatttt 4740
tgttaciaaag ttgacgtat aatagagtta acagtactgt ctaggctgtt gcaatatatt 4800
ctctttcaat gtaccttctc tcacctcgtc gtatatatcc tcgataagta ttaaaacagt 4860
atttgagttt aaaagagttt gtatatattt aaatgaataa ctttttatac tctttgttac 4920
atgtttgtat cagtatttag tggaaaacca tttagagttgt tttgggttag aatttttctt 4980
tttgactgt ttctttaaaa cagagttctt agtaacaggg gcagttcctg aattcaaata 5040
aaccattttg tatgtttgga ttttgaatgg gttactaat tacaggctaa aataatgcct 5100
tttttagtgt ttttaatttt tagaattcac tacataaatt gtaagtaatt gtgggtctca 5160
aaaacactag gaactcttaa gtgtcttagc acttcctcga tgtgcctgcc ctgaggaggt 5220
gagttcacat ttgagacaac tgcaactccag tgtggacgtg cttttgtctt caggccatgc 5280
cgaagggtgt ttaaagcagt cttgcaggtc gtcctttcc cagccgtgga taaaaactga 5340
agctaggaat ctaataagga atgctgattt cctcagttcc attttgagga atggggaagg 5400
ctattctaaa gaaaaaatg ggatttgttt tctcggcaga tctgcaaggc tggctttaag 5460
agcacaagga gggaaagtaa cgaaagggtt ggactactat aaaagttaca aatacgtagt 5520

tagaccaata gatttatata gtcaggTTTT tgtcatgtaa tttattaact aactattaca 5580
 gaaacacagc taagaatata aagtatttct ctggctcttg acagaaaaaa atcagttgac 5640
 ttaacccttt gctgtcaaaa gagttggcgt ttcctgttct ggggtgctact gccaaacgtt 5700
 atggtactta gagtcgggat gcacaacttc aaccaccgac ttatcaatgc agccgcctgt 5760
 gtattgcaat tggccgttac cttaagcact gagccacccg ggtttagttc agccatttca 5820
 agaagtatat ttaacgtcgg tagttctgct ttattaaaat gcagcagagg tactcttctg 5880
 tcccttccgt ttatagttct ctgagagagt tctatttttt ggttttgttt tgtgttttct 5940
 tttgcatttt gtatcttgta tttatccctg aacatgtttt gtaccttttt tttttttttt 6000
 ttttaagaaaa ggaattcttt tgtgtatata tagatacttg catgatatac tgtagtcaat 6060
 gttcggttcc tcaaaaggtc ttgctgctgt caggtgttat gcactccatc catcataact 6120
 gtatgaaaca catttcatat gtaaataaac gtgggacatt tggcccttgt gcttctgtga 6180
 gag 6183

<210> 1337

<211> 4269

<212> DNA

<213> Homo sapiens

<400> 1337

gtttgcggtt tagaccccaa agattcctgt tgggtggtctg ggtcacagga ggcaggtttc 60
 gggagctgga aatgtgagcg ggtacgacag gcaccgcggg taaccgacgc cccgggtcct 120
 tgctgcagcc gggtagcggt gataccggca cccgccttc tccgcccagag tgctgccagg 180
 cgtgggcctg gaatctcttc acacctctc tttggagccc ttaatgatac gacgaacccc 240
 aagtgtttca gaacatgaag taaacaatgg agaactgttc tgctgcatcg acgttcttga 300
 ctgacagctt agagctggag ctggggacgg aatggtgcaa acctccttac tttcttgtg 360
 ctgttgacaa cagaggagga ggaaaacatt tttctggaga atcctacctc tgcagcggag 420
 cccttaagcg attgattttg aatcttgacc ctttaccac taattttgaa gaagatacct 480
 tggaaatatt tggcattcag tgggttactg aaacagcatt agtgaattca tctagagaac 540

tctttcattt attcaggcaa caactgtaca acttggaac cttgttacag tccagttgtg 600
attttgggaa ggtatcaact ctacactgca aagcagacaa tattaggcag cagtgtgtac 660
tattttctcca ttatgttaaa gttttcatct tcaggtatct gaaagtacag aatgctgaga 720
gtcatgttcc tgtccatcct tatgaggctt tggaggctca gcttccctca gtgttgattg 780
atgagcttca tggattactc ttgtatatgt gacacctatc tgaacttccc agtggttaata 840
taggagcatt tgtaaatcaa aaccagatta agctttttcc accgtcatgg catttattac 900
atctccactt ggatatacat tggctggtgc tagaaattct ttacatgctg ggtgaaaaat 960
tgaaacaagt tgtatatggt catcagttta tgaatctggc aagtgacaat ttaaccaaca 1020
tcagcctatt tgaagaacat tgtgaaactc tcctttgtga ttttaataagc ctgtcactca 1080
acaggtacga caaggttagg tcttctgaat cattaatgag tgaccagtgt ccatgtttac 1140
gcattaaaga attatgggtt ctacttattc atcttctaga ccacagaagt aaatggtttg 1200
tctcggaatc attttgggaa tgggtgaata aactacttaa aacactgctt gaaaaatcaa 1260
gtgaccgaag aagatcctct atgcctgtaa tccagtccag ggatccatta ggttttagtt 1320
gggtggattat tactcatgta gcatcatttt acaagtttga tcgccatgga gtaccagatg 1380
aaatgagaaa agtggaatca aattggaact ttgtagaaga actgctgaaa aagtccatca 1440
gtgttcaggg tgtcattcta gaagaacaat tacgaatgta tcttactgt tgtttgacac 1500
tttgtgattt ctgggagcca aacattgcaa ttgttaccat tttatgggaa tattatagta 1560
agaacctgaa tagttccttc agtatttctt ggcttccttt taaaggcctt gctaatacca 1620
tgaagtcacc cttgtctatg cttgaaatgg tgaagacttg ctgttgcat aaacaagatc 1680
aggaactata taaatccagc agtagttata ctatttttct ttgtattctg gcaaaagtgt 1740
ttaaaaaagc aatgaagagc aatggccctc atccttgga acaagtcaa ggaagaatat 1800
attcaaaatt ccatcaaaaa agaattggaag aactaactga agttggtcta cagaactttt 1860
ttagcctttt tctactgtta gcagctgttg cagaggtaga agatgttgca agtcatgttt 1920
tagacctcct gaatttcctc aagcctgctt tcgtaatgtc tcagagagcc ctcatgttga 1980
agggtcacat ggccttcctc ttgatgtatg cccagaaaaa tctggacatt ggtgttttgg 2040
ctgagaaatt ttcattgtgt ttccgggaga aagcaaagga attcttggtg tctaagaatg 2100
aggaaatggt acagagacag actatctgga cccttcttcc catatacatt gatggtgttc 2160
aagaagtgtt tgagaccagc tattgcttgt atccttccca tgaaaaactg cttaatgatg 2220
gatttagtat gcttctgcga gcatgtcgag aatctgaact taggacagta ttgagcttcc 2280

tacaagctgt tctggccaga atcaggagta tgcatacaaa attgtgtcag gaacttcaaa 2340
gggacaatgt ggacctatct gtacagtctt cattatcggc taaagagcgc caccttgctg 2400
cagttgccag tgcactgtgg agacatttct tttcattttt gaagagtcag agaatgtcac 2460
aggtagtgcc tttctcacia cttgcggatg cagctgcaga ctttactttg ctagcaatgg 2520
acatgccaaag cacagctcca tcagattttc agcctcagcc agttatatca attattcaac 2580
tttttggttg ggatgatata atctgccctc aagttgtagc aagatattta agtcatgtcc 2640
tacaaaatag cacattatgt gaagcacttt ctcattcagg ctatgtatct tttcaagcct 2700
taaccgtaag atcatggatt cgttgtgttt tgcaaatgta tattaaaaac ctctctgggc 2760
ctgatgattt gctcatagat aaaaatctgg aagaggcagt tgaaaaagag tacatgaaac 2820
agttggtcaa actgacaaga ttactattta atctctcaga agtaaagagt attttctcaa 2880
aggcccaagc tgaatatcta tccatctcag aagaccctaa aaaagcactt gttcgattct 2940
ttgaggctgt tgggtgaact tacgggaacg tccagacact ttctgataaa tctgccatgg 3000
tcacaaagtc cttggaatac cttggtgaag tattaaaata tattaagcct tatttgggaa 3060
aaaaagtttt cagtgcaggg ctgcagctga cttatggaat gatgggaatt cttgtgaaat 3120
catgggcaca aatctttgcc acttctaaag cccaaaaatt actattccgg atcatagatt 3180
gtttactgct gccacatgca gtattacagc aagagaagga actgcctgca cctatgttgt 3240
cagcaattca gaaaagtctt cttttgtatc tccaggcat gtgtatcgtg tgttgtcaat 3300
ctcaaaatcc gaatgcctat ttgaatcaat tgctaggga tgttattgag cagtatatgt 3360
ggcgatttct tccagcttca ccatatgttt cagatcttgg acaacatcct gttttgctgg 3420
cattgagaaa cacagccact attccgcaa tatcatctct aaagaaatgc attgtgcaag 3480
tcataaggaa atcctacctt gagtataagg ggtcctcacc tcctcctcgc ttagcatcca 3540
ttctggcctt catcctcaa ctcttcaagg aaactaacac agacatttat gaagttgaac 3600
tactcctccc tggcatttta aaatgcttgg tgttagtcag tgaaccacaa gttaaaaggc 3660
tggccacaga gaacctgcaa tacatggtaa aagcctgcca agtgggggtca gaagaagaac 3720
cttcctccca gctgacttct gtgttttaggc agtttatcca ggattatggg atgagggtact 3780
attaccaggt ttacagcatt ttagaaacag tagcaacatt ggaccagcag gttgtcatcc 3840
acttgatttc tacccttact cagtctctga aggtatcaga gcagaaatgg ggccttggca 3900
ggaatatagc acaaaggga gcctatagca aacttttgtc tcaccttgga cagatgggac 3960
aagatgagat gcagagactg gaaaatgata atacttaata tattttgtga ttcacctgt 4020

ctattaatta tcagtatcta aagccacatt gttccactct aattcctact ttttaattaat 4080
 tgtataatgt tctgtttaaa ataatttcta ggattttttt tccttttata tctgtaagta 4140
 aaaaatgtat aaataaggaa ctgaaggtta attagcaact gtgtaatagg atccttggaa 4200
 ctttttaciaa aactgcattc taccttgatg aaattttagt taaactaaat taaagaaaca 4260
 ttttctgag 4269

<210> 1338

<211> 4358

<212> DNA

<213> Homo sapiens

<400> 1338

taattttgaa aagaaaatct taaagtaact tgacacccaa ccatcttgaa gaggggattt 60
 gaaatgctgt aattttatcc cagctttgtt cagccatgac aagtgacctg tcagatgctt 120
 agtattgtaa taacctcatt tccctttcca aatttagagt atctttaata ctattttttt 180
 tagacagagt ctcgatctgt caccagggt gtagtgcaat ggccgcagtc ttggcttact 240
 gcaacctcca tctcccgggt tcaagcgatt ctgcctcagc ctccttagta gctgggatta 300
 caggcgtagg ccagcacacc cagctagttt ttgttttttt agtagagaca ggctttcacc 360
 atggtctcga actcctgacc tcaggcgatc cgcctgcctt ggccctccaa aatgctggga 420
 ttataggtgt gagccatggc acctggccta atactacttt taactaccat tttcactttt 480
 tattagtcca agaaaaggca tacacattta ttcaacatgt atacctgggg agaaccagtc 540
 attaccccga tggttcattat tttgatcacc acgatagagc tgactactct gctatgtagt 600
 gcattttggg actgcactta tgtatgtttt tgtttaacgt ggacaaagac ttacagatag 660
 gtgcaaaaaa taaatcctct tttgcaaccc agaactcatt gttcagtatg agttttgata 720
 catataagaa gggatattat gatacctgag acagttgatt gatgggagta ttgatagcca 780
 taaaggttgg ttccaggcca ggtgcaatgg gtcaagcctg caatccccac accaaggtgg 840
 gagtattgct tgaaccagg agttcaagac cagcctaggc aagaaagtaa gaaacacatc 900
 tccacaaaaa tttaaaaatt agctgggtac tggggcatgt gcctgtagtt ggagttactc 960

agaaaggggg gaggctgagg cagagttgga ggctgcactg agctttgatg gcaccactgt 1020
actccagcct gagtaacaaa gacagaccct gtctcttaag aaaaaaagggt tgattccagg 1080
cctgtagaat agataaacag catgggatat gagggaaatc ctcagcagta ttaattttgc 1140
attccaatth catgttgatg atatacacia tggctttttg ttttaaaggc ttttatcttg 1200
agaacatggt gtctggagtt aaaggatatgt ctcaatttga gttttcacat catatttggt 1260
tatgtgtagg aaacagtatg ttgtcagagc aagtttcatt ttattcaggg acatttctac 1320
catgctttta attcccattt atactgattt ctgaaaagaa gaatcctaga ttcacacatt 1380
ttatagtgat gtgtcagatt catttttagtt gcaagcatta gagggtcctg aatttgttag 1440
ttttagcaaa taatcagaac tttggatttc ctacttgaag cctacagcat tattttgaat 1500
taatgcacaa tctaaaatga ggcagaggat tttatggttt aatgcaaaat atagtataat 1560
aaaagatgat tacacaggtc ataagaattc ataaatttga atgatgtaga gtttgattaa 1620
aagttatata atgcaaagt cgtaacttac aggcacatta tattcctgta ttttataatg 1680
gatgacaatt aatcttgagc caagaattaa aatttgctga aatcttcgaa ttgggaaaac 1740
aacatcctct gttgcaatac tgaagttcat aacaacagtt agactttaaa cttaaacttt 1800
aagtttaaat ctttttcctt tggttcatgt aaaggagcta cttgatgtta ctttttattt 1860
atcattcctc tggctcctaa gcacaacgtg attgtgaaat tattgttttt gtgattaacg 1920
tagtaggaag tttctgcagt tggcaatatt gtaagagcat attgcagttt ctgctcataa 1980
tttctttcct atggagtgtt agactttgtt atttatgtgt ataaatacta gctggacaca 2040
gtgggtgcctg tgggtccccag ctactctgga ggctaaggca ggagaaacac ttgagcccag 2100
cggtttgagg ctacagtgag atgtgatcct gccacatctc actgtagcat cgaacccttg 2160
ggctcaagtg attcagcaag aatcacacga tttttaaaag acatggcaga tcctgtgtct 2220
ttaaaaaaaaa atcaaaacct tgtaaatagt ggttgaggtc tatcccgatg gggcttttcc 2280
ttagcctgc acatcgttgg aaacgcctca tagagtaact ctgtggtttt actttactca 2340
caggactatt gttagatctg tgggaaggaa ttacaagaca gttgctaaaa gtttgaaaaa 2400
gacggttgct aaacgttatg aaaaaccaga taatctactt ttttacctta ggtattggca 2460
tactccacac atctgtacca ttcttgagt atcgcttagg taagttttta ttggtgacag 2520
tataatcttt tgggaaataa tgattacagt tcagatgatg aatttaactg ttcaactgct 2580
gaatgataac gggcatgaac taaaacttaa ttctgacaga gctggatatg gctgtataat 2640
aaactggatc ttaaatttat acttgggttt tagttttaat aactggaaat gtatcctttc 2700

taaatcttta attggtactt tctataggaa tgaatgtgat ttgaactcat tcatgttgag 2760
aggtaagtaa aatatttaac ttataataat caaggactca aaagatgaaa aatagaaatt 2820
acaccatccc agtatttcag gtataacaca gaattagtaa gatactggca aaaatattac 2880
aatgtatata tttgtataga gaaggaaaat gaagagactg catgtctata cctaccaaac 2940
gaaactacct gtgttctttg catcattatt caactggcag ttacacatat ttcactctaa 3000
agtcacgtaa acctgtgtgg atatgttgaa tcaataggga tatgaattac ataaaaagaa 3060
ttttgtgtaa ctggcagttt gagcaacaat gagcttgacg tttgttgtct gatctgttaa 3120
gttacatgta tatattccat ctttaagttt tatagagaga ctgggcaaag attaggcaaa 3180
gactagagtt gtagcttaaa atgtagttaa tgtagcttcc ttattacagt gacaattagg 3240
aaaaaagctc aaattattgt acttgtttaa ggaatttgag aggtttgtga aagcatttct 3300
cagcaatatt gcaaatttgg gaatacgagt tgtacagttc agtcataatt gcactgcatg 3360
gtatctgcac tcagcagttt acacctgcta ggggtgttcaa aggtcagtg c tatagaaatt 3420
cagtatctgg catcgttgg tttcttggct ttgtgcttgt taaacctggg atttctactg 3480
atacagtatt tgtgtaggtt tctcagagtg ttcagtttga tatactctaa aatagtaagc 3540
aatgcttttt tttccagggt gtcaaattga gaaccaggta gatccccacc acctacagta 3600
aaaaggaccc taaagtaa tgggtgaaga aattagatcc caaagattct tgggtgaattt 3660
tgaagtcttc atcagtatat ccatattaaa acgagatgac agaagccaaa gtaattatgg 3720
caagtaatgg tttttatctt aactataagt tatttgctca aggggtgtaat ggtcattacc 3780
aaggctttta gaatgcagtt tctcatttgc tgtggacatg accataaaaa aatttcccag 3840
taggttttct atctgctact ttgctagcaa tcagcttatg gggaacagtt gattaactgt 3900
aatagaaatg caatacaaat aaaatgtgaa ccacatgtga tttttcttta aaatcagtga 3960
gatttgaaaa ttctcctaga tctcttggat catgcaaatt tgctttgcct ttatattgta 4020
acccttgtgg gttgctaata accaagcagt ttgtagtaga gtttaactcag gctcgttcta 4080
gggactcatt catgttcact cactgtacac tcactcttgg aaatgtaaaa ttactttta 4140
tactattggt atgtagggct gacaggacaa ctggatcagt ttcattaaaa agggcaaact 4200
tgaagataaa tcttttgact ccagctcttt agaggatcta aagtgcctt gatggacagt 4260
ggaagaaatc acaacatgga attcctcgaa taacaattta ttgactttta ataattttgt 4320
ctaagtctac atatacaca ttaaaaaacc tttacact 4358

<210> 1339

<211> 3329

<212> DNA

<213> Homo sapiens

<400> 1339

```
aaaatcactc tccctcaacg ctcaactgggc gccggcagga aagtgggctt ggcgggaaga 60
cgtgacagca gcaacaacca aggaataatga agcaaggctt caactccggg aggggtcagcc 120
aatgaaaact cactgataac cttgttgagc cggtcgtaat cctcctcgat gcccacgctg 180
tccaagatct tcttgatgtc cttggcgctg ggggaggagt taccctcgag ggcagccagc 240
agcccggtga agcctcgga ggcgtggcca gggcagggca tccaagccga gcgccggggg 300
ttggcaccgt ctctctccct ggcacggcgg agacaactga atactgaaag aaaaaacaa 360
cacaccgca ggaatgagcc acgcctccat ccacgccaca aagggttga cagttaatga 420
ttggtcgctg aaggagccga gcggaggagc gagagggacg cgagcaagag agcgaggag 480
ggagcgcagg gccagagcgg agccccagcc ggccgcacag gcaccgcctc ccgtcttccg 540
ggacccggca cttcggggggt tttgggcgcc ggagacgcgc aaggggcgccg atggaggcag 600
actgccagc gggccccggc gccccagagc ccctcgcgga gggagcggcg gccgagttct 660
ccagcctgct gcgcaggata aaaggcaaac tcttcacctg gaatattttg aaaacaattg 720
ccctgggtca gatgttgtcc ttgtgtatat gtgggacagc catcaccagc cagtatttgg 780
cagaaagata caaagtgaac acccccatgc ttcagagctt tatcaattat tgcttgcgtg 840
tcctaattta tacagtgatg ctggcatttc gatcaggcag tgataacctt ttagtaatct 900
tgaaaagaaa atggtggaag tacatcctgc tgggactagc agatgtggaa gctaattatg 960
tgatcgtcag agcctaccag tacacaactc taaccagtgt ccagcttttg gattgctttg 1020
ggattcctgt gttgatggct ctgtcatggt ttattcttca tgcaagatac agagtgatcc 1080
acttcacgc cgtggctgtc tgtctgttgg gtgtaggaac catggttggg gcagacatac 1140
tagcaggag ggaagacaat tcaggagtg atgtattgat tggtagacatc ttggctcttc 1200
ttggggcttc cctctatgcc atttcaaag tttgtgagga atacatcgtg aagaagctga 1260
gcagacagga gtttttagga atggtgggcc tgtttggaa aattatcagt ggtatacagc 1320
```

tattgattgt ggaatataag gatattgcc a gcattcattg ggactggaaa attgccctgc 1380
tgttcgtggc atttgcctg tgtatgtttt gcctgtacag cttcatgcc a ttggtgatta 1440
aagtcactag tgccacttcc gtcaacctgg gcatcctgac agcggacctc tacagccttt 1500
ttgttggact ctttctgttt ggctataagg actctacatc ctgtccttca ctgtcatcat 1560
ggtggggttt atcctgtact gctccacccc tactcgcacg gccgagccgg ctgaaagcag 1620
cgtgcctcca gtcaccagca ttgggattga caacctgggg ctgaagctgg aggagaacct 1680
ccaggagacc cactctgctg tcttgtagct ggagaagatg gcgcacccat cccccaccag 1740
gataaagcag agcctgctgc ctgctgaggg gacacttggg gaaatagcag actcagaatg 1800
gacactctac aacctgggt tggatccagt ggtaggttt tagaaaggaa cactgaacaa 1860
agttcaaaag tagaaatacc aaaatagagc agaaaccaag ctaagagtgt gtttctgtgt 1920
ttgaggacca atatctgttc gtgttcagga gatgaggtgc agactccaca ctgggggtctt 1980
agaggcacca gtgggaaagc aggactgggg agagatccag gactgagcca gcctcaggcc 2040
agggcgggaa agcaggctgt ccaggctggg cttggtggtc aggaacaggg gcagctcacg 2100
gtggctctgg agtacgtttc ctctgtcaga tgcttcaagg ttttttttt ttttttttg 2160
ctgaggcagt tattgtccac aggcccttgg gtacagatga ggcctcgggg ctgactgcat 2220
gtggcagaaa acgggtgggt cagcccttga aaagtcctga gatataagtg tgagtactat 2280
acaagcatta aactggagtg cagtaaacct aggaaccttc ccacaattgt ttttttgttt 2340
gtttgagatg cagagtctag agtgcagtgg tgcaagctca gcttactgta acctctgcct 2400
cctggattca agtgttagta gctgggatta caaaagcatg tggccccacg cccagctaag 2460
ttttgtattt ttagtagaca tggggtttca ccatgttgcc caggctggtc ttgacctccc 2520
gacctcaagt gatctgcctg ccccgacctc ccaaagtgt gggattacag gcttgagcca 2580
ccgtgccagg cctgttttgt ttgttttgt agagagatgg ggtttcgcca tgttgcccag 2640
gctaattca aattcctgag ctaaagcgat ctgcccacct cggcctccga aagtgctagg 2700
attacagatg tgaaccactg tgcctggcct gtttgtttgt ttgtttaaaa catttctcca 2760
tactcattc cagggtcccag agcaaactct ctctgctctc ggagcctgtg acactggcta 2820
tgtgtccac agtttcagtc ccaggtcata ctctccaaca gttttcagag ctccatatat 2880
atgtagatgc catcctttct aaaaacttct cacgacctcc tggaatatc ctattgatct 2940
cattttattt agcatcagct caagaaacta agtcttagtg cacagtatca caacaaagaa 3000
aaagctttgt ttttataact ggtaaaaaca agaaaagatt ctcataaaaa tgaaaatata 3060

aaattaatca tttctcacca aagagtatgc ctgggagcct ccagctgtta aaagacaatg 3120
ctattactac ttcttatcaa aaatctgtaa tgccctgtga tttttatgat acttcttcaa 3180
tacaaaagtgt taatatgtgt catcagtata ataacaacca acaaaatgcc actttcagaa 3240
aactgtatgt aaatTTTTTg taacaatgta aaaaagaaat ggggagtaag tgttcacatc 3300
attaaaaggc tttgaattca tggaatac 3329

<210> 1340

<211> 3947

<212> DNA

<213> Homo sapiens

<400> 1340

agtgtgatg gagttattga agaaatgatg gagtaagaga ctcttttcta agcaactcaa 60
gtttgcagtg attcaggcct acttctgaag agacagcctt ttatctcaat gaatgacaca 120
gaaaaaccag cagatactcc ctctgaggaa gaggactttg gtgatccaag gacatatgac 180
ccagatttca aggggcctgt tgccaacaga ctaaactggg aactccgtga gagaaagcat 240
ctcatctgtg tggttcacca acgtttcata gcatctgcca cagtatccgg cacaaaatag 300
gagttgtaca gatgttctgt gctgtatgat ctctctactg tattattggc tacattgttt 360
taggacttgt ggcctgggta catggggacc ccagaagagc agcctatcct acagacagcc 420
agggccactt ttgtggccag aagggcactc ccaatgagaa caagaccatt ttgttttact 480
ttaacctgtt acgctgtacc agccccctcg tattgctaaa cctacagtgc cctaccacac 540
agatctgtgt ctccaagtgc ccagaaaaat ttttaaccta tgtggaaatg caacttttgt 600
acacaaaaga caaaagctac tgggaagact accgtcagtt ctgtaagacc actgctaagc 660
ctgtgaagtc tctcacacag cttttactgg atgatgattg tccaacagcg atttttccca 720
gcaaaccitt tctccagaga tgtttccctg acttctctac caaaaatggc actttaacaa 780
taggaagtaa gatgatgttt caagatggaa atggaggac aagaagtgtt gtagaactcg 840
ggattgctgc aaatggatc aataaacttc ttgatgcaa gtcacttgga ttgaaagtgt 900
ttgaagacta tgcaagaact tggatttgga ttctcattgg cctgacgatt gccatggtcc 960

ttagttggat atttttgata cttctgaggt tcatagctgg atgcctcttc tgggtcttca 1020
tgattggtgt gattggaatt ataggttatg gaatatggca ctgttaccag cagtacacca 1080
atcttcagga acgcccaggt tccgtattaa ctatctatga catcgggatt cagactaaca 1140
taagcatgta ctttgaactg caacaaacat gggtcacatt tatgataata ctctgcatca 1200
ttgaagtgat tgtcatcctc atgctgatct tcctcaggaa tcgaatccga gtcgccatta 1260
tcctgctgaa ggaaggaagc aaagccattg gatatgttcc tagtacatta gtctatccag 1320
ctttaacttt cttttgctc tcaatctgca tttgctactg ggtcgtgaca gcagttttct 1380
tggcgacatc ggggggtacct gtatacaag tcatagctcc agggggggcat tgtatacatg 1440
aaaatcaaac ctgtgacca gagaatttta atacaactga aattgccaaa gcttgccctg 1500
gggctctgtg taactttgct ttctatgggtg gaaagagctt gtaccatcag tacatcccta 1560
ccttccatgt atacaactta tttgtctttc tctggcttat aaacttcgtc attgcattag 1620
gtcagtgcgc ccttgctgggt gcattcgcta cttattactg ggccatgaaa aaacctgatg 1680
acatcccacg atatccactt tttactgcat ttggacgagc catacgatat cacacaggat 1740
ccctagcatt tggatcttta attattgcat taattcaaatt gtttaaaatt gtactagaat 1800
acttggaaca ccgtcttaaa cgtaccaga acacattgtc taaattccta cagtgtgcc 1860
tgagatgctg cttctgggtgt ttggaaaatg caataaagtt tttaaacaga aatgcctata 1920
ttatgattgc aatatatggc agaaacttct gcaggtcagc aaaagatgct ttcaatctgc 1980
tgatgagaaa tgttttgaaa gttgcagtta cagatgaagt tacatacttt gtattattcc 2040
tggggaaact tctagttgct ggaagtatag gtgttctggc cttcctattc ttcacacaaa 2100
gactgccagt gattgcacaa ggaccagcat ctttaaatta ctactgggta cttttgctga 2160
cagtcatttt tgggtcttac ctgattgcac atgggttctt cagcgtctat gcaatgtgtg 2220
ttgaaacaat tttcatctgc ttcttggag atttagaaag aatgatggt tctactgcaa 2280
gaccttatta tgtgagtcaa cttttgctga agattttcca ggaggaaaat ccacaaacta 2340
ggaagcagta gaagagcaaa ctggctgtcc tacagctgtg tgttaccttt tctccatctg 2400
ctgtgtctgt gcaacatttg tttcataagt gctttgtgtt tagcaacact gtattcacga 2460
ccttgttggc ttgcatttgc atgttttata ccaaagctta tactgtacta tgtgaagcca 2520
tcagaagtcg caagggaatt gttaataaca taaaacattt ttatactaag atcatttgtt 2580
ttgtaattcg tttttaaga gtggcttggg tgttttgaaa atactactga atatgttaat 2640
attcttttaa atcttagatt gaaaaatgat acattactta aattgatagc tcctaata 2700

tttttaaaat tacaactaaa agaagacttc ttctgcaggg aaaattggtc agcaaagtga 2760
aattaaaaat tttaaagttt ttcccactct cgttggacag taaatcagtg aaaggactgc 2820
cccagttgag agtttgctct ctttaagtat agaatgtttc ctcttaaaca aattgccaat 2880
catccagcct ttactactta gccctctgac aaagtgcctt actggctatt taatattacc 2940
cagcttttat gggcaagttt acaaacattg ttttttaaaa aattaaaacc tgcaatgttt 3000
cgtgattaaa acaagtcctta ttgcatttgt ttactctta gctcactgat tggaaaacat 3060
ttgtcatttt gctctgtttg atatcctcac tattatggaa tacattgtgc agctaaacaa 3120
tttcccttgc gcctagtgga cattcatgaa tgtgtactac acgcaagaag aaacaaaccc 3180
cgaaagaaca cttgttggat ttctttgttt ttttttttac taaaagagaa gtttttaaat 3240
gaaatgtttt ctatagtaga tctttgaaaa tacaataggt ataatactgc atttctcagt 3300
gttttacaaa gatcagaaaag agaaacttct aggaattgca aagggaact ttactcctcg 3360
aaaggggtgct cacagatgtc atgtactgaa tagctccctt ttaaatgac atttattttc 3420
atcaaagcct gttctatata tgccacttca ttttctaact tttggtatga aaaaatcagt 3480
ttacttacag tatgttaatt gtattgtact actataaaca ggaacataat ttccaattca 3540
gttttaata attttaccag tactactaac ttttaaggaa attaattcag ttggttactc 3600
agtgtttgtt acagaaagag tccagaaaag tattcacct aagagaatgt caatcatata 3660
atgataattt gtgaaagcct tgagaatcaa tcatcagtaa gttactatca gtttataaaa 3720
tattatcaca tttgttttaa tgtgacttta gatactttta tgccaaaaat aaactcacat 3780
gagcacatga cagtctgagc tctataatca gtgtgcttct gctgtgcaga aatgttagaa 3840
acgtattgtc taaatatctt tgataattaa aatgtttaat atttaatgaa atttgttgtt 3900
acttgtttta aatctttttt cttttaataa agatttaa at aagaaat 3947

<210> 1341

<211> 4504

<212> DNA

<213> Homo sapiens

<400> 1341

aaggctgcac tgctcacgcc tatgcgtgcc tggactacac agctccagaa gctgaaggga 60
cgctgcatga ctgtgtttgg agataccctc ctatgttcag ctgccatcat ctacctgggt 120
cccttcccac cattgcggcg ccaagagcta ctggacgagt ggtagctct gtgtaggggc 180
tttcaggagg ctctgggccc agatgatgtg gcacaggcac tgaagcgga gcaaaaatct 240
gtcagcatac caccaaagaa cccctgtctg gctacacact ctcccttcag tattctgtcc 300
ttgctgagct ctgaatcgga gcagtaccag tgggatggaa acctgaagcc acaggcaaag 360
tcggcccacc tggcaggctt gcttctgcga agccccacac actacagtag ttgccgttgg 420
cctctgctgc ttgaccccag caacgaggcc ctcatctggt tggacccgct gcctctggaa 480
gagaatcgat cttttgcgcc agccctcact gagggtagag ggaaaggcct catgagaaat 540
caaaagagag agagtaaaac ggacatgaaa gaggaagatg atgagagtga agagagtaat 600
gaggctgagg accagacaaa agagcagaag gcagaggaaa gaaaaaatga gcaggagaaa 660
gagcaagagg aaaatgaaga gaaagaggag gagaagacag agagccagggt gtcaaagcca 720
gcctatgaga ctcagcttcc atcccttccc taccttagtg ttctttcagg tgctgacca 780
gagctgggtt ctcagctcca ggaggcagct gcttgtggtg agagctggtc cccaccacc 840
ctggcccgtt ttgacttgc ccattctgt gacccccacag gcctcccaca cctcagtcta 900
acttcagttc ccattcttca tcccaggcac taactatatt gaagcgtctt gtgggaaccc 960
tcctatcagc cacagggaag ctggtcagag ccagacctcg tgcctgggga atggggatca 1020
tgggtgctgg cattgtgggt aggggtgcctt tgcctccctc tcacaggcct gcctgtgtta 1080
ctgaccaatg tggagctggg tctagggtgc gaagaactgc aatggctgct gcaacgggag 1140
cagctgagtc caccacaggt gcagcctggc ttctgtctgt atctcagcac caccctctcc 1200
ctctgtgcca tggaaaaagg tgaggcccag agggcaaat gccagcacag ttgtgtggac 1260
acactaggcc ctcagcacca gccctaagag ggcttcactc aacctggccc agagcaggca 1320
caggctctata gcagggagcc atactccctg tctactctac cccctggccc tgccaagggg 1380
aagagggtta gcatctccca tgttacccca agtgctaggt tgtgaactgc taaaggggct 1440
gaatgtgttg gatctgggcc tgaacatgga aatactggaa gaacagatgc tgcatgaaat 1500
cttgtgcaga gagtatcctg aactcgagac ccgtggcag gacctaaaga tcagagccct 1560
agatactgc aaggctgtgg aggctgctga ggagcggctg ctgacgatgc tgctgttcca 1620
gaatccgaag cgtcagaagc cagccaagtt tctgcggaac atagtgaggg cccaaggaaa 1680
gctatgccag ctgcatgctc attgtgaaga gttagaaggg cagaaactac aggagatggt 1740

attgtgggca ccctatcgac ctgtggtttg gcatggaatg gccatggtaa aggccctaag 1800
ccaactgcag aacctgctgc cacttttctg tatgagccca gagaactggc tggcagtcac 1860
taagcaggct ctggacagca tgaagccacg tgagattaat cacggggagg acctggccag 1920
ccatctactg caattgagag cacacctgac ccgccagctg ctgggcagca ccgtgactgc 1980
actgggcctt acccaagtac ccttgggtggg tgcattgggc gctttggctc tgctgcaagc 2040
aacagggaaa gcatcagagc tggaaagact ggcaactctgg cctggactag cagcctctcc 2100
cagcacagtc cacagcaagc cagtctcaga tgtggctcga ccggcctggc ttgggccaaa 2160
agcctggcat gaatgtgaga tgtagagct gctgccccca tttgttggcc tgtgtgcctc 2220
cctggcaggc cactccagtg cttggcaggc ttacctgtca ctgtcatcca cagtgtgagg 2280
tcctgcacct gggccagggc ctgagccact cagcctctc cagaagctga tcctgtggcg 2340
cgttctgcga cctgagtgcc tggcaggtgc cctggcagac ttcaccacta gcctcctggg 2400
tcggccccctg gatgaaaaca cgtatgctcc caccatgccc tttaaacata gtcaggctac 2460
tcagcccatg ctgatcttgt tgccaccgcc tggccacccc tcagccactc tgcctctct 2520
gactgtcatc cagaaactgg ctgccaagta tcagcagggg cagaagcaac tgcaggtgat 2580
agccctgggc tctgaagcct gggaccagct ctcagttgtg gtcagcactc tatcccaggc 2640
tatgtatgag gggcactggc tgggtgctgga caactgtcat ctgatgcccc attggccgaa 2700
agagctgcta cagctcttgc tggaactgtt aggcagagcc aaggtgggtg cagacctgga 2760
atcagaacag cttttagacc aacctgaaag caggaatgta agcactgttc acagagattt 2820
tcgtcttttg cttattgtgc ctgcagagtc tagtgcttct ttgccagctg tgctgactca 2880
gcactccatg cctgttttct ggaaccagtc cctggagctg ggccatgttt tgattgacag 2940
tgtggagcta gcccagcaag tactctacat gcaaccccc acccaggcac tacctctgct 3000
cctcctccat ggctcctgc tacaccggca gctctatgga acaaggctgc aggcacacag 3060
ggggcgctgg agtcaagtga ctctaacca ggttcttcag acccaagacc agctgtgggc 3120
aagtcttagc aatccccgtg ctgccatgca agagctggct gcttcagttt tctacggggg 3180
tcctctgggg gacactgagg acagggaggc cctgattagc ctacacaag cctgcctgag 3240
ccccagtagt gggagctggg tccagccaca cacacctcag tctttgctgg ccacgctcat 3300
gcccctcca gagctaaggg agctggatgc aatggcagag tgcaaggccc agatgcacct 3360
actgccctca ccacctgaac cccggctctg cggactgagt gagggcccc aagcctggct 3420
gttgcgacgc cagagtcgcg ctctcttgag tgcgctgcag cggagttcac ccgtgtgggt 3480

tcctgagtct cgaagaggcg cccagcttgc ggaaaggcga ctgcggcaac gcctagtgc 3540
 agtcaaccgg aggctggagt cactgcagga tctgctgacc cacgtgattc gccaaagacga 3600
 gtccgacgcc ccgtggtcag tgctggggcc aaatgcacgg cggcctctgg agggcgctctt 3660
 agagaccgag gctctagaac tgagccagtt ggtgggcacg ctacaacgcg accttgattg 3720
 cctgttgcag cagctgaagg gcgcaccccc gtgcccctcc cgccgctgtg ctgcggtggc 3780
 ccacgctctc tggactggcc gcctaccctt gccttggcga cctcatgcgc cggccggtcc 3840
 gcagccgccc tggcactggc tgcgacagtt gtcgcgccgt gggcaactgt tggttcgta 3900
 cttgggcgtg ggcgcgagc cgagcagtga tgtaccagag cgcgtcttcc acctgtcagc 3960
 ctttcgccac ccgcgccgcc tgctgctggc attgcgtggg gaagctgccc tggaccagaa 4020
 tgtgcccagc tcgaatttcc ctggtagccg aggctcggtc tccagtcagc tccagtataa 4080
 acgtctggag atgaacagca accctctgca cttcagggtg gagaatggtc caaatccac 4140
 ggttccagag agagggctgc tgctgatcgg gctacaggtc ctacatgcgg agtgggaccc 4200
 aatagctgga gccttgcagg acagtccttc cagccaaccc agccctctgc ctcccgtcag 4260
 catcagcaca caggcccccg gcaccagtga cctgccagcc ccagccgacc tgactgtgta 4320
 ctcgtgtcct gtgtacatgg gagggcccct tggcaccgct aagctgcaga gcaggaacat 4380
 cgtgatgcat ctgcctttac ccaccaagct ccccccaac acctgtgtcc aaaggagggt 4440
 ccatgtgtgc agcccacccc tgtcttgagc ccgtctacca aaataaagtt gtagtgattc 4500
 catg 4504

<210> 1342

<211> 5275

<212> DNA

<213> Homo sapiens

<400> 1342

cgggagaagg gagaacggag ggggagggga aaccagggcc agcgagggt gtgcctgccg 60
 agacagcgtg cgtgacctcg gggactcggc tggggcccag gatccgaaac cttcagattg 120
 acctcgctgc tcagtacata aaggctgccg tgaagaacgt tccctcgggtg ttctgatga 180

cagactccca ggtggccgag gagcagtttc tgggtgctgat caatgacctg ctggcctcag 240
gagagatccc tgggctgttt atggaggacg aggtggagaa catcatctcc tccatgcgac 300
cccaagtcaa gtcccttggc atgaatgaca ctcgggaaac atgttggaag ttcttcatcg 360
aaaaagtgcg cagacagctc aaggatgatcc tgtgtttctc ccctgtgggc tccgtgctgc 420
gggtacgagc cagaaagttc ccagctgtgg tcaactgcac ggccatcgac tggttccacg 480
agtggccgga agatgcgctg gtgtccgtca gcgcccgtt cctggaggag actgagggga 540
ttccgtggga agtcaaggcc tccatcagct tcttcatgtc ctacgtgcac accaccgtca 600
acgagatgtc cagggtatac ctggctactg agaggcgcta caactacacc acacccaaaa 660
cctttctgga gcagatcaaa ctgtaccaga acctgctggc caagaagaga acggaacttg 720
ttgccaaaat cgagaggctg gagaacggcc tgatgaagct gcagagcacg gcttcccagg 780
tggatgattt gaaagccaag ttggcgattc aggaggctga gctcaagcag aagaatgaga 840
gcgcagacca actgatccag gtggtcggca tcgaggccga gaaggtcagc aaagagaagg 900
ccattgctga ccaggaagaa gtcaaggctg aggtcatcaa taagagcgtc actgagaagc 960
aaaaggcctg tgaaacagac ctggccaaag cagaaccggc cctgctggca gcccaggagg 1020
ctctggacac tctgaataag aacaacctga cagagctgaa gtcctttggg tccccgccgg 1080
atgctgtggt caacgtcacc gccgccgtca tgattctgac cgcacctggg ggcaagatcc 1140
ccaaggacaa gagctggaag gcggccaaga tcatgatggg caaggtggac accttccatg 1200
actccctgaa gaagttcgac aaggagcaca tccctgaggc ctgcctgaag gccttcaagc 1260
cctaccaagg caaccgacg ttcgaccccg agttcatccg ctccaagtcc acggccgccg 1320
ccggcctgtg ctcttggtgc atcaacatcg tccgtttcta cgaggcctac tgcgacgtgg 1380
cgccaagag gcaggcactg gaggaggcta atgcagagct ggcagaggca caagagaagc 1440
tgtcccggat caaaaacaag attgcccgac ttccaactt ggttttgcag gaacttaacg 1500
ccaacctgag caacctaacc tcagcgtttg aaaaagcaac agctgagaaa atcaagtgtc 1560
agcaagaggc cgatgccacg aacagggtga tcttactggc gaacaggctg gtcgggggat 1620
tagcatcgga aaacatccgc tgggctgagt ctgtggagaa cttcaggagc caggggggtca 1680
cgctgtgtgg ggacgtcctg ctcatctctg ccttcgtgtc ctacgtgggc tacttcacca 1740
agaaataccg gaatgagctg atggagaaat tctggatccc ttacatacat aacttaaagg 1800
tccccatccc gatcacgaat ggcctggatc ccttgagcct gctgacagat gacgcggacg 1860
tggccacctg gaacaaccag ggcctcccca gcgaccgcat gtccaccgag aatgccacca 1920

tcctgggcaa caccgagcgg tggccgctga tcgtggacgc ccagctccaa ggaatcaagt 1980
ggatcaaaaa caaatacagg agtgaactga aagccatccg cctgggacag aagagctacc 2040
tggatgtcat cgagcaggcc atctcggaag gggacacctt gtcattgag aacatcggcg 2100
aaaccgtgga ccccggtgtg gaccctctac tgggcaggaa cacgattaaa aagggaagt 2160
gagttgtttc cgcctccgtg gcttgagcca ggtacattaa gatcggtgac aaggaggtgg 2220
agtaccaccc caagttccgc ctgatcctac acaccaagta cttcaacca cactacaagc 2280
cagagatgca ggctcagtgc accctcatca acttcttggg caccagggat ggactcgagg 2340
accaactctt ggccgctgtg gtggccaaag agcgcccaga tctggaacag ctggaggcaa 2400
acctcaccaa gtctcaaac gaatttaaga ttgttctgaa agagctggaa gattcgctcc 2460
tggcccgctc gtcggctgcg tcggggaact ttctgggaga cacggccttg gtggagaatc 2520
tggagaccac caagcacaca gccagcgaga tcgaggagaa ggtggtggag gcaaaaatca 2580
cagaagttaa aatcaacgaa gcgagagaga actaccgccc ggctgcggag agggcatctc 2640
tgctctactt catactgaac gatctcaaca aaatcaaccc cgtctaccag ttctccctca 2700
aggccttcaa cgtggtgttt gagaaagcca tccagaggac caccctgcc aacgaggtga 2760
agcagcgggt gatcaacctg acggacgaga tcacctactc cgtctacatg tacacggccc 2820
ggggactctt cgagagggac aaactcattt tcctggcaca agttacgttt caggtcctgt 2880
ccatgaagaa ggagctgaac ccagtggagc tggatttcct cctgcggttc ctttttaagg 2940
ccggagtggg ctcaccagtg gacttctctc agcatcaagg ctggggcgagg atcaaggccc 3000
tctcggatgat ggtgagttc aaaaatctgg acagtgacat cgaaggatct gccaaagcgt 3060
ggaaaaagct ggtggagtgc gaagcccccg agaaggagat cttccccaag gagtggaaga 3120
acaagacggc cctgcagaag ctgtgcatgg tgcgctgcct gcggccagat cgcagacct 3180
acgctatcaa gaacttcgtg gaggaagaaga tgggcagcaa gttcgtggaa ggccggagtg 3240
ttgagttttc taagtcctac gaggagagca gcccctccac gtcaatcttc ttcactctct 3300
ccccgggggt tgacccttg aaagacgtgg aagccctggg aaaaaacta gggtttacca 3360
tagacaatgg aaaactccat aatgtgtccc tggggcaggg acaagaggtg gtggctgaga 3420
acgccctgga cgtggctgca gagaaaggac actgggtcat tctgcagaat atccacctgg 3480
tggcccggtg gctgggaaca ctggacaaga agctggagcg ctacagcacg ggcagccatg 3540
aggactaccg ggtgttcctc agcgcgaggc ctgccccag ccccgagacc cacatcatcc 3600
cccagggcct tctggagaac gccatcaaga tcaccaacga gcccccacg ggcagtcacg 3660

ccaacttgca caaggccctg gacctgttca cccaggacac cctggagatg tgcaccaagg 3720
agatggagtt caagtgcatt ctcttcgccc tgtgctactt ccacgctgtg gtggcagaga 3780
ggcgcaagtt cggcgcccag ggctggaacc ggtcgtaccc cttcaacaac ggggacctca 3840
ccatctccat caacgtgctc tacaactacc tggaggccaa cccaaggtg ccctgggacg 3900
atctccgcta cctttttggt gaaatcatgt atggcggcca catcacagat gactgggacc 3960
gtcggctgtg caggacctac ctggctgaat acatccggac ggagatgctg gagggagacg 4020
tcctgctggc ccccggcttt cagatcccc ccaacctgga ctacaagggt taccacgaat 4080
acatcgatga gaacctgccc cctgagagtc cctatctgta tggcctgcac cccaacgcag 4140
agattggctt tctgacggtc acctcagaga agctgtttcg cactgtcctg gaaatgcagc 4200
caaaagagac ggactcgggg gcaggcacgg gagtgtcccg cgaggagaag gtgaaggccg 4260
tgctggacga catcctggag aagattccgg agactctcaa catggctgag atcatggcaa 4320
aggcagcggg aaagaccccc tatgtggtag tgcctttca agaattgtga agaattgaaca 4380
tcctgaccaa cgaaatgcgc cgttcgctca aggagctgaa cctggggctg aagggagaac 4440
tgaccatcac gaccgacgtg gaagatctgt ccacggctct cttctatgac accgtgcctg 4500
atacgtgggt ggcccgggccc taccctcca tgatgggcct ggcggcctgg tacgcagacc 4560
tgctgctccg catcaggcgg ctctgtgtgc cttgcaggaa ctcgaggcct ggacgacaga 4620
ctttgccctg cccaccaccg tgtggctggc cggtttcttc aacccccagt cgttcctcac 4680
ggccatcatg cagtccatgg ccaggaagaa cgagtggccc ctggacaaga tgtgtctgtc 4740
tgtcgagggt accaagaaaa accgagagga catgaccgct cctccgcgag agggctccta 4800
cgtgtacgga ctcttcacgg aaggggctcg ctgggacacc cagactggag tcatcgctga 4860
agcgcggctg aaagagctga ccccgccat gcctgtcatc ttcattcaagg ccattcctgt 4920
ggaccgcatg gagaccaaga acatctatga gtgtcccggt taaaaaac gcattccgcg 4980
ccccacctat gcctggacct ttaacttgaa gaccaaagag aaggcagcga agtggatcct 5040
ggcagccgtg gcgctgctcc tacaggttta gctcgtcct gcctcacagc ccactccc 5100
tggggctgga ccacaactca gcccttcgcc tgtgcacctg tgacttattc ttacaggaa 5160
ctggtgggtg tttttcgttc tcttaataa tcagggtgct tgtaaccaag cacatcgaa 5220
ccagagggtg gaggttggtg tggaagaggt ggggcagatt aaagccagt gagcc 5275

<210> 1343

<211> 3867

<212> DNA

<213> Homo sapiens

<400> 1343

```
cctccagaat gcggcgtccc tgtcttcaag gcacgtactg tgaccagcac actaatctct 60
gttactctag cggatggcct tcagcttttg gaaccagccc ggcaacctcc tttccccttg 120
ctcatcagtc cccgggaacg agcccagtga cctcccctca gtcactcat gtacccttgg 180
aaactggacc catgatttcg cctcctccta cacataggac cccgggaact tgcctcacga 240
tttcacctcc tcttgctcgc cggccggtgg aaactagtcc tatggcctcc ccaacccttt 300
ctcacagagt tttggaaact gggctgatga tctctctgcc ctctcactgg ttctcaggga 360
gaagttataa tgacccctt ctctccccag catcttcccc acctactggc agcttttacc 420
atggcagcct taagcctcta gactcttgtg aacccaaacc acagcttgac ctgccccttg 480
agaaaaattg ttgtggcttc ccactctctt ctccaggcagg catgcctggc tctcccagct 540
cacctcagga gggctcttat cattactccc atctttcctc agaggcctac atacctaccc 600
ctgggagtcc ttgctatgcc atctgcctgt gccccgggag tactgattct ctttgctcac 660
cccagtccca ggctcccagg aaggcttgca ttgagtcctt tctctcctgg gaggcaactg 720
ggaactctta cctcactcta accccggaca ccacaacttc tgggtccccc tgttcccagg 780
aaccatctcg tccccatggt cctcattctg tcctttcctt cccttcaccc ctgggcaacc 840
agtttatatc tccaccccag tcacttcccc gcagaagcta taatgaacc cctcttccca 900
ctccagtttc cccccaaccg aagtcacctc agtcccaga gttaagacag tcacatactc 960
cccacaaatg tctctccta gtcaacactc cccagcacac cccttctggc cagcccaagc 1020
ccgctaaggc ccacacctgt ccccccactc cctcctgcct ctctggctct tcttgatgc 1080
agccatacat cacaactcct tcaaattcca gccccaaaga acttccccca gggactacct 1140
tactgactgt ggtccctaga gctctcaaaa gtgttatccc cacttctttt cccctctgcc 1200
ttccttgta tctgtctcg gccaatagtt atgctcagag cagccgcat ggacctcca 1260
tagggcccc ctgcaatacc catatatgct ctgtggttcc ctccacccc catccctgcc 1320
cactgtctgg ctccctcaat cattcgacag gccccctcc cattgtgccc ctgtgtgaca 1380
```

cctatagcac tcccaggggc ccacccaac ctcgttgtca gcctgtgatg cctccttggt 1440
ctaccacat ctattctttt atccctttga gaacaccctt tgatcctcaa agtttaccca 1500
ttgtcccccg agtccgggccc taccctgata ctgtcccctg tggcctccat atctaccctg 1560
tggcctctca aggcccttgc aaagagcctc tgcagatccc ctacagctgc cttttgcctt 1620
catccaagga ttccagctgt agcaccaatc ccagctgtag ttcgactatt attagcaaatt 1680
gccagagtag tgacagcgag agcaggagtt cccaccaaag ccaaagccgg agccaaagca 1740
agagtcccca tgatggcaga agtcagagct ggagcaagag gcatcatctg agcagaagtc 1800
caagtcagaa aagcagtccc taccctagca gaagctgggg ccggagcagt aatcctcaac 1860
aaaacacaag tcagggccag agtgagagtc cccaacttag cataaatgag caccagggtg 1920
agagtcccca aattagcaga ggtcagggca agagcaagag tctatgatgg caaaagtcgg 1980
aaccggagca agagtcccca acatggcaaa ggtcaaggcc agagcaagag tccccaacat 2040
agcaggagcc agagcaagag tcccagcgag gcaaaaagtc cagagcaaga gtcctcacca 2100
taacaagaaa tgagggccag agcaaaaagt ctgaccagac caaaaatcta ggccagagca 2160
aggcatagat agtaacaaga ttgccagcta tagcaagcat cccagctgca gcaaccagga 2220
ccgacttgtg cactcctcat ctgaagtctt catttctctt ttactctgcc tccttggtct 2280
tgtcctcttg tcccctgcta ccccatagc agtcaccta gaagtcctg ttttggttca 2340
cacctcaaga ttctgtgggc cctccttatc caacctttct ggggtctggg aactctccca 2400
gcatgacct caacctctg attctaagca tgggtggtgt agtcactgtg tgacgctagg 2460
ctgccacaga gcccaaattc cctgctgttc gactggcttt gcagaatttt gacatggctt 2520
acagtgtgca gtttgagat ctttgccat caatccgtgt cagtctctc tcagagcaga 2580
agtatggtgc actggtcaat aactttgctg cctgggatca tgtaagtgt aagctggagc 2640
agctgagtgc caaggatttt gtgaatgaag ccatctccca ctgggaactg cagtctgagg 2700
gtggccaatc tgcagcccca tcccctgcct cctgggcctg cagtccgaac cttegatgct 2760
tcacttttga cagaggggat atcagtcgt tccctcctgc cagacctggc agcctgggtg 2820
tcatggagta ctacctgat gatgctgcct ccttgctgcc tgttctggcc ctcggcctgc 2880
agcctgggga catcgtgctt gacctatgtg cagtcctgg gggaaagaca ctacgcttgc 2940
ttcagactgg ctgttgccgc aatcttgctg ccaatgatct ctccccgtcc cgaatagcca 3000
gactacagaa gatccttcac agctatgtgc ctgaagagat cagggatgga aatcaagttc 3060
gagttacctc atgggatggc aggaaatggg gagaactgga gggggacacc tatgaccggg 3120

tgctggtgga tgtgccctgt accacagacc gccactccct tcatgaggag gagaacaaca 3180
 tctttaagcg gtcaaggaag aaggagcgac agatattgcc tgtgctgcaa gtgcagcttc 3240
 ttgcggctgg actccttgcc accaaaccag gaggccatgt tgtctattct acctgctcac 3300
 tctcacactt acagaacgag tatgtggtgc aagggtgcat tgagctcctg gccaatcaat 3360
 acagcatcca ggtacaggtg gaagatctga ctacttccg aagggttttc atggacacat 3420
 tttgtttctt ctcatcctgt cagggtgggg agctggtaat accaaacctc atggccaatt 3480
 ttggcccat gtacttctgc aaaatgcgta ggctgacata gtatcaccca atccctgaag 3540
 caagaatata aagggtatac tctgttggat gcaccagaaa ctggaaactg ggaccagtgg 3600
 cagagatgca ctctcggtcc tgtctccatc ctgttctgt ttttctgcag ttttcggcaa 3660
 taagaagtag aagatttgct gtcctgctgt ccaattgtgg agcatcagca ggtttccaac 3720
 tctactatta acccctaccc catctccagg cctgtactaa agtttgctgc ccgcttaggg 3780
 gcttagaagg agaagccagt gagcaggctc acactaagtt gtaaacaatag gagaagcatt 3840
 tggccaataa agttgttgaa actctat 3867

<210> 1344

<211> 3946

<212> DNA

<213> Homo sapiens

<400> 1344

ctttttgctt ctctgcgcc agagctccag tccttctctt cactgctctg cgtcctctgc 60
 tcctggaggc caagcctctg tggccttggt tcctgcaagt attcgcatat ttatggctaa 120
 aagaccggga cccctggaa gccgagaaat gggactgttg acattcagag acatagctat 180
 agaattttct ctggcggaat ggcaatgcct ggatcatgct cagcagaatt tatatagaga 240
 tgtgatgtta gagaactaca gaaacctggt ctccctgggt attgctgtct ctaagccaga 300
 ctgatcacc tgtctggagc aaaataaaga gcccagaat ataaagagaa atgagatggt 360
 agccaaacac ccagttacat gttctcattt cacccaagac cttcagtcag agcaggggcat 420
 aaaagattca ctccaaaaag tgatactgag aagatatgga aaatgtggac aggaggattt 480

acaagtaaaa aaatgctgta aaagtgtagg tgagtgtgag gtgcacaaag gaggttataa 540
ttatgttaac caatgtttgt cagctaccca aaacaaaaca tticagactc ataatgcgt 600
caaagtcttt ggtaaatfff caaatccaa tagacacaag acaagacata ctggaaagaa 660
acatttcaaa tgtaaaaacg atggcaaate attttgcatt ctttcacgcc taaatcaaca 720
tcagataatt cactactagg agaagtctta caaatgtgaa gaatgtggca aatcctttta 780
ctgctcttca acccttacta gacataaaag aattcactat ggagagaaac cctacagatg 840
tgaggaatgt ggcaaagctt ttagctgggtc tgcattccctt actaaacata agagaattca 900
tactggagag aaaccttaca catgtgaaga acgtggcaaa gtcttttagcc gctcaacact 960
tactaactac aagagaattc atactggaga gaaaccctac acatgtgaag aatgtggcaa 1020
agccttttagc cgctcttcaa cacttactaa ccacaagaga attcactatg gagagagacc 1080
ctacaaatgt gaagaatgtg gcaaagcctt tagcttatcc tcaaccctta agaaacataa 1140
gatagtcat actggggaga aactctacac atgtgaagaa tgtgggaaag cctttacctt 1200
ctcctcaact ctaaatactc ataagaggat tcatactgga gagaaaccct acatttgtga 1260
agaatgtggc aaagccttta gcttaccctc aaccttactt taccacaaga gaactcacta 1320
tgagagaaaa ccctacaaat gtgaagaatg tggcaaagcc tttaactgct cctcaaccct 1380
taagaaacat aagataattc atactggaga gaaactctac aaatgtaaag aatgtgggaa 1440
agcctttacc ttctctcaa ctctaaatac tcataagagg attcactatg gagagaaacc 1500
ctacaaatgt gaagaatgtg accaaacttt taagtggcat tcaagtcttg ctaatcataa 1560
gaatatgcat actggagaga aaccctacaa atatgaataa tgtggttaaag tccagccctc 1620
aggccttata atacataaaa taattttatac tggaaaaaat cactacaagt gtggagaatg 1680
tggccaattc tttaaccagt tccaaaccac tgctgtccat aagataattc atattggaca 1740
aaagtcttat aaatgtaaaa aaaaaagtaa cagcctgggt gacagagcga gaatccatct 1800
taaaaaaaaa aaaaaagcg taaatgtgat tactgtaaaa agacctttca gaaaacatag 1860
gcctttaaag caaagactat ttattctaaa gacaaacatt aaacataaa gaggattgtg 1920
tagtaccttt atttgtatta cggattttat tgtacacatt ttatatcaaa ggaaaaccct 1980
gaaacagatg ctcaaacttt gttgaacatc ggagaattta tattggagag aaagtgtaaa 2040
tgaatgtcaa aaaatatttg ttcaaaaact acagtttaga aaacactagt ttatactaaa 2100
aaaatatttt tgcagatgca gtaaatgggg aaaatatgtt taatcaaaaa ttaagtctac 2160
ataaacattt gaggattcac agtagaaaga atgaaggtgc tgaaacttca gacattacac 2220

taaatcagag tgttgagtgt aaaaaagata taaatctaac aatataaatt taaagaagta 2280
gattttatttg gagatttata attacattcg aggtatgctt ctttctttgt aaaaaaaaaat 2340
atagattttc tgaaaagcaa atagtaatgt aactcacgtt tcaaattact tcatgttgat 2400
cctttcttcc cattgtttct gtgaaagtat tggaccaatt gttgaatcag agatatgaga 2460
ttgtttttta taggtgtcca ttattcatga actttcctat ggatgagtaa ggacattaag 2520
ttgtaagatg cataatgaaa atctaaatgg agaggttctt tgtggttgac ttataacatt 2580
gttttagtga tgtataaggc gagcgttcag agtaatatc taaattctag tgaggaaaac 2640
ctttgaacgt cagtagtaaa ttattttatc aattgtacct ttatgtaaac aaagttgttt 2700
ttaatgagct aaaactattg tgctttgaaa gaagtattaa gctgccattg actctatcgt 2760
gtctcatctt aaggttctgc gtaaaagatg gtgacaatat actatttggt aatgtagggg 2820
aatgacatca ctagtagtct cttttttgcc agtgtttttg tttgtttgtt ttgagactaa 2880
gtcttactct gtcacccaga ctgggggtgca gtgggtgcgat ctcagctcac tgcaacctcc 2940
acctcctggg tccaagtgat tctcctgctt cagcctcaca agtagctgga actaggggca 3000
ggcaccacca ctcttggtta atttttgtat ttttagtgga gatgggggtt ccccatgttg 3060
gccaggctgg tctcaaactc ctgacctcag gtgatacacc cacctcgggtg tgccgaagtg 3120
ctgggattac aggcattgagc caccatgcct ggctactag aggtttttaa cagcaaacaa 3180
gttgaagaat tttgttccca taggacaaat ttgtactttt ttaccttatt taattttttt 3240
ttaatttttg tgggtagtgt gcatacacac ttatggcata tatgagatat gttaacacat 3300
gcacataata tttaatgatc acaacagagt aaatgaggca ttcattacct tgagcatgta 3360
tttatccttt gtattacaaa caatcccatt atacagtttt agttatttca atatgtgcaa 3420
ttgaattact attaaccaca gggtcatttt atgatcataa aaattacatg agtataatta 3480
atacccatatc atttctgagt cttgattaaa tattttttaa attttgttt ataaattttt 3540
tgcacatgtg gcatctctgc tgacaaacaa aaacagactt ttagtttcaa ttacataga 3600
gttacatata caaatatatt actctaaaga tataccagcc gagcacagtg gctcccagca 3660
ttttgggagc ctgagggtggg aggatcattt gaggttagga gttcaagacc agcctggcca 3720
acatggtgaa gccccatctc tactaagagt gcaaaaagtt agctgggcat ggtggtgcat 3780
gccccatggtc ccagttactc aggaggctga ggcaggagaa ttgcttgaac ctcggagggtg 3840
gagggtggcag tgagctgaga tgggtgctact gcactccagc ctgggtgaaa gagcgagaaa 3900
ccatctcaaa aaaaaataa ataaataaaa gatatacctt aagcat 3946

<210> 1345

<211> 4166

<212> DNA

<213> Homo sapiens

<400> 1345

cttcaagcac agagctggtg ggttggagtc aggcattctgc acccctagtg gctgtctggt	60
gaggaatttc ttgtttcttc ccagcttgcg gcttcagtgc ttgatggggc tgcctgttgg	120
tggatcagtt tttgcagtgc ctggtaggag tggagagccg tgggaagagg tcctgcggcg	180
cccaagcctg ggttcacccc aagactaagt tctttcccaa gttagagaag aagagagaaa	240
gcaaaaagaa gagaggaaag ttcccccttc cctcctccg tgcctgtcat gtcctctaag	300
ccagagccga aggacgtcca ccaactgaac gggactggcc cttctgcctc tcctgtctct	360
tcagatggcc caggagaga gcccttggct gggacctcag agttcctggg gcctgatggg	420
gctggggtag aggtggtgat tgagtctcg gccaacgcca aggggggttcg ggaggaggac	480
gccctgctgg agaacgggag ccagagcaac gaaagtgcg acgtcagcac agaccgtggc	540
cctgcgccac cttccccgct caaggagacc tccttttcca tcgggctgca agtactgttt	600
ccattcctcc tggcaggctt tgggactgtg gctgctggca tgggtgttga catcgtgcag	660
cactgggaag tcttccagaa ggtgacagag gtcttcatcc tagtgcctgc gctgctgggg	720
ctcaaaggga acctggaaat gaccctggca tcaaggcttt ccaactgcagc caacattgga	780
cacatggaca cacccaagga gctctggcgg atgatcactg ggaacatggc cctcatccag	840
gtgcaggcca cgggtggtggg cttcctggcg tccatcgcag ccgtcgtctt tggctggatc	900
cctgatggcc acttcagtat tccgcacgcc ttcctgctct gtgctagcag cgtggccaca	960
gccttcattg cctccctggt actgggtatg atcatgattg gagtcatcat tggctctcgc	1020
aagattggga tcaaccaga caacgtggcc acaccattg ctgccagcct gggcgacctc	1080
atcaccttgg cgctgctctc aggcattcagc tggggactct acctggaact gaatcactgg	1140
cgatacatct accactggt gtgtgctttc tttgtggccc tgctgcctgt ctgggtggtg	1200
ctggcccgac gaagtccagc cacaaggag gtgttgtact cgggctggga gcctgttata	1260

attgccatgg ccatcagcag tgtgggaggc ctcatcttgg acaagactgt ctcagacccc 1320
aactttgctg ggatggctgt cttcacgcct gtgattaatg gtgttggggg caatctgggtg 1380
gcagtgcagg ccagccgcat ctccaccttc ctgcacatga atggaatgcc cggagagaaac 1440
tctgagcaag ctctcgcg ctgtcccagt ccttgtacca ccttcttcag ccctgatgtg 1500
aattctcgt cagcccggt cctcttcctc ctctgggtcc caggacacct ggtgttcctc 1560
tacaccatca gctgtatgca gggcgggcac accaccctca cactcatctt catcatcttc 1620
tatatgacag ctgcactgct ccaggtgctg attctcctgt acatcgcaga ctggatgggtg 1680
cactggatgt ggggccgggg cctggaccgc gacaacttct ccatcccata cttgactgct 1740
ctgggggacc tgcttggcac tgggtccta gcactcagct tccatgttct ctggctcata 1800
ggggaccgag acacggatgt cggggactag cttgggtcact caacatttcc cccatccctc 1860
tgcactttct atttgaaatt tttcttttgt tcccctgtcc ctctccacc ccacactccc 1920
acctctttct aggacttcac ttgatacca aattctcatt attttcaatg ggaattttta 1980
tacattgagc caagtttgta tagcaagaat ttgggaaaca cagatggcct gagataagca 2040
gtacaagtag gtttttgaga caatcaccaa gtgcagtttc atggtgggtg cctccaggtg 2100
atgtggactg gagcaggggt gttttgtctg gaatctgggg acatgggggt tggcttttagc 2160
aacctgtctt ggccctaatt agaaaccctt tgtaagtggg ctctggattt ttggttttgt 2220
tttcttttta tctgttttgt tttatttttg gttttggtt aacagaggga cagaagaata 2280
agtaacactc ccaaacacag acatactttt gtagaagtgg accaacttca aagctctgga 2340
caggagacac ctgctccagg cccctgtgat cccagtctg tctcttgcc ctctggacct 2400
aagcgttccc actcgcagaa agagtaaggt ggactgactt ttcaatttgt gcacatgcct 2460
cttgttcaat ggcttgggtc acatcaacaa cccctccctc tgatcatttc cagttgattg 2520
tcatatccag gaaaaaatgg aacagtgcac tcttctccct gttgacctat gtccacctat 2580
tggttcccca aaatccacat tctccctggg cccagatgac ttgtctccc tgggccaga 2640
ttctttgtct ctcttcaacc ttcatctcaa attgtctcta agcactacct tcccagagc 2700
ttgccagggt gggttttgag attaggttca ggtcatgggt atgtggagaa tggtttggag 2760
gttgaggaca accacaggtg tctcattgct gccatttctc ctgaggacat aatcacttgg 2820
tcaccttga cctgtcact tctaaaatt actcgttctg tcatgccata gaggtcagtt 2880
ttctctttc ttggcttcta cccacaaaca ttaccaatc atttatctgt tcatttagca 2940
aatatgcagc ctccgcaaga tgagctctcc tgcagacaag catggtctga aacattcttt 3000

gagcaatatt tattgagtgc ctactatgtg ttaggtactg tgccaggcac tgataagcca 3060
 gtggtaaggg aaacacagct ctaacctcac ctcatctcc tttccagacc cctactctgt 3120
 gcagtgtga ccacagctag agccaccgcc ccattgtca accagtattt atttcctaa 3180
 acgacccttc ctacattcc ctccctcca cctctcctta ccaagcacc aaaagaggat 3240
 ttagaactag caggggtggac atcatctggt tgtttctact tttctctgcc tagcacaaaa 3300
 ttgggagaaa actggagcct ccatccgcag tcacacgtgt acagatctgg ggatttggat 3360
 gtaggctttt tctaacttct ctctcagaag cttctacaga aacccttcca tctgtagcct 3420
 caagggccca cctccaaggg aaggcttagg caatgatcct gtttctacca acactgcacc 3480
 ttatcccagg aacctgccct agacctccag agaccatatt ttctctccct ccatttctac 3540
 ccagacctcc aggcctcctt ctggaatcat agaaccgtag aattggaagg aattttagag 3600
 gttttctagt tggagtgtg tccaacagaa ttcattaaca ccagcctggg cttgttttc 3660
 ctctccctc tggactttt tcatcttttc ctccacctca aaaaatactt acacacagat 3720
 tcttcttgta caggcatcaa aaccaactcc tctgccccta aggctgtgtc cctgtggtct 3780
 ccagccacc ctaccccagt cactcgcccc ttctcatct ctggaatttg gccaggcagt 3840
 cccagaagac tctggagtga cctcctttgc ctaaaaagca gacagatagg catgccccag 3900
 gccctgagt agcagaggag gactgtaggg tgagaggga agaaaatgaa ggtgactttc 3960
 atggaagttt ctttctttt cccgattgt accaactgca tgtacttttg gcctggctgc 4020
 aaggagcaat attggtttac tctcgatcc ttaaaaagtt acagaactgt gtcttaagag 4080
 aattatttat agttactata actgaattga caaatgtcaa cttaactgat aaattatatt 4140
 tggtaaaata aagaggacgt ttattt 4166

<210> 1346

<211> 3559

<212> DNA

<213> Homo sapiens

<400> 1346

aaccctgcct ggctccgcc cttcacgcc ccctcttttc cgctccgcgc ctgcgcactg 60

ccaccctcca ctctcgcgcc agcccggcgg cggccggctg tgggctgcag cacgcggtgc 120
acgaggcaga gcccacaagc caaagacgga gtgggcccag cattccggcc acgccttccg 180
cggccaagtc attatggcag cactgagat ctctgtcctt tctgagcaat tcaccaagat 240
caaagaactc gagttgatgc cggaaaaagg cctgaaggag gaggaaaaag acggagtgtg 300
cagagagaaa gaccatcgga gccctagtga gttggaggcc gagcgtacct ctggggcctt 360
ccaggacagc gtcctggagg aagaagtgga gctgggtgctg gcccctcgg aggagagcga 420
gaagtacatc ctgaccctgc agacggtgca cttcacttct gaagctgtgg agttgcagga 480
tatgagcttg ctgagcatac agcagcaaga aggggtgcag gtgggtgtgc aacagcctgg 540
ccctgggttg ctgtggcttg aggaagggcc cggcagagc ctgcagcagt gtgtggccat 600
tagtatccag caagagctgt actccccgca agagatggag gtgttgcaat tccacgtctt 660
agaggagaat gtgatggtgg ccagtgaaga cagtaagtta gcggtgagcc tggctgaaac 720
tgctggactg atcaagctcg aggaagagca ggagaagaac cagttattgg ctgaaagaac 780
aaaggagcag ctcttttttg tggaaacaat gtcaggagat gaaagaagtg acgaaattgt 840
tctcacagtt tcaaattcaa atgtggaaga acaagaggat caacctacag ctggtcaagc 900
agatgctgaa aaggccaaat ctacaaaaaa tcaaagaaag acaaaggag caaaaggaac 960
cttccactgt gatgtctgca tgttcacctc ttctagaatg tcaagtttta atcgatcatat 1020
gaaaactcac accagtgaga agcctcacct gtgtcacctc tgcctgaaaa ctttcgtac 1080
ggtcactctg ctgcggaacc atgttaacac ccacacagga accaggccct acaagtgtaa 1140
cgactgcaac atggcatttg tcaccagtgg agaactcgtc cgacacaggc gctataaaca 1200
tactcatgag aaacccttta aatgttccat gtgcaagtat gccagtgtgg aggcaagtaa 1260
attgaagcgc catgtccgat cccacactgg ggagcgcccc ttctagtgtt gccagtgcag 1320
ctatgccagc agagacacct acaagctgaa acgccacatg agaacgcact caggtgagaa 1380
gccttacgaa tgccacatct gccacacccg cttcacccag agcgggacca tgaaaataca 1440
tattctgcag aaacacggcg aaaatgtccc caaataccag tgtccccatt gtgccacat 1500
cattgcacgg aaaagcgacc tacgtgtgca tatgcgcaac ttgcatgctt acagcgctgc 1560
agagctgaaa tgccgctact gttctgtgtt cttccatgaa cgctatgccc tcattcagca 1620
ccagaaaact cataagaatg agaagaggtt caagtgcaaa cactgcagtt atgcctgcaa 1680
gcaggaacgt catatgaccg ctcacattcg taccacact ggagagaaac cattcacctg 1740
cctttcttgc aataaatgtt tccgacagaa gcaacttcta aacgctcact tcaggaaata 1800

ccacgatgca aatttcatcc cgactgttta caaatgctcc aagtgtggca aaggcttttc 1860
ccgctggatt aacctgcaca gacattcgga gaagtgtgga tcaggggaag caaagtcggc 1920
tgcttcagga aagggaagaa gaacaagaaa gaggaagcag accatcctga aggaagccac 1980
aaagggtcag aaggaagctg cgaagggatg gaaggaagcc gcgaatggag acgaagctgc 2040
tgctgaggag gcttccacca cgaagggaga acagttccca ggagagatgt ttcctgtcgc 2100
ctgcagagaa accacagcca gagtcaaaga ggaagtggat gaaggcgtga cctgtgaaat 2160
gctcctcaac acgatggata agtgagaggg attcgggttg cgtgttcact gcccccaatt 2220
cctaaagcaa gttagaagtt tttagcattt aaggtgtgaa atgctcctca acacgatgga 2280
taagtgagag agagtcaggt tgcatgttca ctgcccctaa ttcctaaagc aagttagaaa 2340
tttttagcat tttctttgaa acaattaagt tcatgacaat ggatgacaca agtttgaggt 2400
agtgtctaga attgttctcc tgttttagc tggtatattc aaagaaacat tgcaggtatt 2460
ttataaaaagt tttaaacctt gaatgagagg gtaacacctc aaacctatga attcattcac 2520
ttgatattgg caaggtggcc cacaatgagt gagtagtgat ttttgatat ttcaaaatag 2580
tctagaccag ctagtgttc cacagtcaa gctggacatt tttatgttg attatataca 2640
cccatgatat ttctaataat atatggtttt aaacattaaa gacaaatgtt ttatacaaa 2700
tgaattttct acaaaattta aagctacat aatgctttta attagttcta aattcaacca 2760
aaaaatgttt tactcttata aaaaggaaaa ctgagtagga aatgaaatac tagattagac 2820
tagaaaataa ggaataaatc gattttactt tggatatagga gcaaggttca ctttagatt 2880
tttgatttct cttttaatta tgctccttgg caggtatgaa attgccctgg ttacattcca 2940
ttattgctta ttagtatttc actccataac cttttttct gctaaaacta ctctttttat 3000
atttgtaaaa taattggcag agtgagaaga aacataaaat cagataaggc aaatgtgtac 3060
ctgtaaggaa tttgtacttt ttcataatgc ccagtgatta gtgagtattt cccttttgcc 3120
agttgacaag atttttccac cctcgagcag cgtgagagat gcctcttta cacttgaaat 3180
tcatttctat ctggatacag aggcagattt ttcttcattg cttagttgag cagtttgttt 3240
tgctgccaac ctgtctccac ccctgtattt caagatcatt gataagccct aaattcaaat 3300
tcttaagata tggacctttt attgaaaata tcacaagttc agaatcccta tacaatgtga 3360
atatgtggaa ataatttccc agcaggaaga gcattatatt ctctttgtac cagcaaatta 3420
atttaactca actcacatga gatttaaatt ctgtgggctg tagtatgcca tcattgtgac 3480
tgaatttgtg caatggtttc ttaatttttt tactgttatt taaagatgtt ttacataatt 3540

caataaaatg aaatgactt

3559

<210> 1347

<211> 4403

<212> DNA

<213> Homo sapiens

<400> 1347

aattgaagcg ctaagattgc cagagcagcc tgtagacgta ccatcggaga ttgcagattc	60
atccatgaca agaccgcagg agttgccgga gctgcctaag accacagcgt tggagctgca	120
ggagtcgtcg gtggcctcag cgatggagtt gccggggcca cctgcgacct ccatgccgga	180
gttgcagggg cccctgtga ctccagtgt ggagttacct gggccctctg ctaccccgtt	240
gccagagttg ccaggggccc tttctacccc agtgcctgag ttgccagggc cccctgcgac	300
agcagtgcct gagttgccag ggccctctgt gacaccagtg ccacagttgt cgcaggaatt	360
gccagggtt ccagcaccat ccatgggggt ggagccacca caggaggtac cagagccacc	420
tgtgatggca caggagttgc cagggtgtcc tttggtgaca gcagcagtag agttgccaga	480
gcagcctgcg gtaacagtag caatggagtt gaccgaacaa cctgtgacga cgacagagtt	540
ggagcagcct gtggggatga caacggtgga acatcctggg catcctgagg tgacaacggc	600
aacagggttg ctggggcagc ctgaggcaac gatggtgctg gagttgccag gacagccagt	660
ggcaacgaca gcgctggagt tgccggggca gccttcggtg actgggggtgc cagagttgcc	720
ggggctgcct tcggcaacta gggcactgga gttgtcgggg cagcctgttg caactggggc	780
actggagttg cctgggccgc tcatggcagc tggggcactg gagttctcgg ggcagtctgg	840
ggcagctgga gcaactggagc ttttggggca gcctctggca acagggggtgc tggagttgcc	900
agggcagcct ggggcgccag agttgcctgg gcagcctgtg gcaactgtgg cgctggagat	960
ctctgttcag tctgtggtga caacatcgga gctgtcaacg atgaccgtgt cgcagtcctt	1020
ggaggtgccc tcgacgacag cgctggaatc ctataatacg gtagcacagg agctgcctac	1080
tacattagtg ggggagactt ctgtaacagt aggagtggat cccttgatgg cccagaatc	1140
ccatatatta gcttctaaca ccatggagac ccatatatta gcatccaaca ccatggactc	1200

ccaaatgcta gcgtccaaca ccatggactc ccagatgcta gcatccaaca ccatggactc 1260
ccagatgtta gcgtctagca ccatggactc ccagatgtta gcaactagct ccatggactc 1320
ccagatgtta gcaactagct ccatggactc ccagatgtta gcaactagca ctatggactc 1380
ccagatgtta gcaaccagtt ccatggactc ccagatgtta gcaaccagct ccatggactc 1440
ccagatgtta gcaaccagct ccatggactc ccagatgtta gcaaccagct ccatggactc 1500
ccagatgtta gcaaccagca ccatggattc tcagatgtta gcaaccagca ccatggactc 1560
ccagatgtta gcaactagct caatggattc ccagatgtta gcatctggca ctatggactc 1620
tcaaagtta gcttctggca ccatggatgc tcagatgtta gcgtctggta ccatggatgc 1680
ccagatgtta gcgtctagta cccaagattc tgctatgttg ggttcaaat ctctgatcc 1740
ctataggta gctcaggatc cttacaggtt agctcaggat ccctataggt tgggccatga 1800
cccctataga ttaggtcatg atgcttacag gttaggacaa gacccttata gattaggcca 1860
tgatccctac agactaactc ctgatcccta taggatgtca cctagaccct acaggatagc 1920
accaggtcc tatagaatag caccagggc atataggta gcacctagac ccctgatgtt 1980
agcatctaga cgttctatga tgatgtccta tgctgcagaa cgttccatga tgtcatctta 2040
cgaacgctct atgatgtctt atgagcggtc tatgatgtcc cctatggctg aacgctctat 2100
gatgtcagcc tacgagcgt ctatgatgtc agcctacgag cgctctatga tgtccctat 2160
ggctgagcgc tctatgatgt cagcttatga acgtccatg atgtcagctt atgaacgctc 2220
catgatgtcc ccaatggctg atcgatctat aatgtccatg ggtgctgacc ggtctatgat 2280
gtcgtcatac tctgctgctg accggtctat gatgtcatcg tactctgcag ctgaccgatc 2340
tatgatgtca tcttatactg ctgatcgctt aatgatgtct atggctgctg attcttacac 2400
cgattcttac actgacacat atacagaggc atatatgggtg ccacctttgc ctctgaaga 2460
gcccccaaca atgccaccgt tgccacctga ggagccacca atgacaccac cattgcctcc 2520
tgaggaacca ccagagggtc cagcattgcc cactgagcag tcagcattaa cagctgaaaa 2580
tacttggcct acagaggtgc catcattacc atctgaagag tctgtatcgc agcctgagcc 2640
tcctgtgagt caaagtgaga ttctggagcc ttcagcagtg cctactgatt attcagtgtc 2700
agcatcagat ccctcagttt tagtatcaga ggctgctgtg actgttccag aaccaccacc 2760
agagccagaa tcttcaatta cgttaacacc tgtagagtct gcagtagtag cagaagaaca 2820
tgaagttgtt ccagagagac cagtgacttg tatggtatct gaaactcccg ccatgtcagc 2880
tgaaccaact gtgttagcat cagagcctcc tgttatgtca gagacagcag aaacatttga 2940

ttccatgaga gcctcaggac atgttgccctc agaagtatct acatccttgt tggttccagc 3000
 agtaactact ccagtgtctgg cagagagcat tctggagccg ccagccatgg ctgccccaga 3060
 gtcttcagct atggctgtcc tggagtcttc ggctgtgacc gtcctggagt cttcgactgt 3120
 gactgtcctg gagtcttcga ctgtaactgt cctggagcct tcggttgtga ctgtcccgga 3180
 gcctcctggt gtggctgagc cagactatgt taccattcct gtgccagttg tttctgcgct 3240
 ggagccttct gtgcctgttc tggaaccagc ggtgtcagtc cttcaacctt ctatgattgt 3300
 ttcagaacca tctgtttctg tccaggaatc gactgtgaca gtttcagagc ctgctgtcac 3360
 agtctcagag cagactcaag taataccaac tgaggtggct atagagtcca caccaatgat 3420
 actggaatct agtatcatgt catcacatgt tatgaaagga attaattctat cctctggtga 3480
 tcaaaatctt gctccagaga ttggcatgca ggagattgca ttgcattcag gtgaagaacc 3540
 acatgctgag gaacacctga aaggtgactt ttacgaaagt gaacatggta taaatataga 3600
 ccttaatata aataatcatt taattgctaa agagatggaa cataatacag tgtgtgctgc 3660
 tggtagtagt cctgttgggg aaattgggtga agagaaaatt ttgccacca gtgagactaa 3720
 acagtgcaca gtattggata cctaccctgg tgtagtgaa gctgatgcag gagaaactct 3780
 atcttctact ggtccttttg ctctggaacc tgatgcaaca ggaactagta aggggtattga 3840
 atttaccaca gcatctactc tcagtttagt taataaatat gatgttgatt tatctttaac 3900
 tactcaagat actgaacatg acatggtaat ttccaccagt cctagtgggtg gtagtgaagc 3960
 tgacattgaa gggcctttgc ctgctaaaga tattcatctt gatttaccat ctaataataa 4020
 ccttgtagt aaggatacag aagaaccatt acctgtaaaa gagagtgacc agacattagc 4080
 agctctgctc agccctaaag aaagtagtgg aggagaaaaa gaagtacctc cccctcctaa 4140
 agagacactg cctgattcag gatcttctgc caatattgag gatattaatg aagcagattt 4200
 agtgagaccg ttacttccta aggacatgga acgtcttaca agccttagag ctggcattga 4260
 aggaccttta cttgcaagtg atgttggacg tgacagatct gctgccagcc cggttghtaag 4320
 tagtatgcca gaaagagctt cagagtcttc ttcagaggaa aaagatgatt atgaaatttt 4380
 tgtaaaagtt aaggacactc acg 4403

<210> 1348

<211> 4103

<212> DNA

<213> Homo sapiens

<400> 1348

gcagtcaccc	taacatcccc	agcttatcat	cctcagggtta	ttgggcaact	ggcttcccca	60
acccaaatta	tacctgagac	tatggaataa	aggtcttctg	ggcttccaca	ttagtgaat	120
aattgggacc	ccccccctc	ccaagaattc	gggtccattg	aaacctattc	aaattacata	180
tttttatgtg	tgatgagatg	aaccaggaca	accaaagctg	aactctctta	aaatgtgact	240
tatcttttcc	ctaagcctta	tagatttctt	ggcataggca	gtcggagaat	acctactttt	300
tttttttttt	tttttttttg	gagatggagt	tttgctctgt	tgcctgggct	ggagtgcagt	360
gtgcgatctc	ggctcacggc	aacttccgtc	tcctgggttc	aagcgattct	cctgcctgtc	420
tcccaagtag	ctgggattac	aggtgcacgc	caccacacct	ggctaatttt	gtattttttag	480
tagagacagg	gtttcatcat	gttggtcagg	ctggcttga	acttctgacc	tcaggtgatc	540
cgcccacctc	agcctcccaa	agtgcctggga	ttataggcat	gagccaccgc	gcctggccaa	600
tacctaccct	tttacgagct	actcagtcta	aagcaacagg	cagcaaatat	tttcttaaag	660
ggccagagaa	taaaagtgtt	ggctcacagg	ccatgggggtg	tctgtggcga	ccaccaact	720
ccgcttttga	agtagcacca	cagctaccat	agacaatagg	aaaatgatgg	ctgtggttgc	780
gttctattac	aacttttaggt	actgacaggc	gatgcactgg	aattggccca	cagggtctta	840
tttggtaaac	ccctgctctg	gtgtaaagag	ggatgtgttc	ccgtgggtcat	ccctagggaa	900
tgagtgggtg	aaacactggt	ccactgttat	tctgctggac	agtgagatgg	tgatgggaga	960
cccctcatca	tcagtggcag	ggccccatcc	attgtctggt	aatgccaaag	ccagagatgt	1020
gagagagact	ttacagtggg	agaggacttg	ttgaccaga	tgggccgatg	ccttgtttct	1080
gggaagccac	acctctgtct	atgcattaaa	gacttccagg	agaacacccc	agcacagtgc	1140
aaccagagc	tgccccctca	tagccagcac	acacagaaga	ggaagcgggc	agtggctgtg	1200
tgttgtctct	gatgcaagct	tgctctgtga	aagcctgttt	cctcactgat	ggaaggaagc	1260
gtagggatga	aatagatgat	agagataaaa	gagcttggat	cagtgttct	cagttgagtt	1320
tgcatgacgt	cgtggagctc	agcatccacg	tgaaactgtt	gcaaggaaat	gatgtcagtg	1380
tgcaaacatc	ttcgggtcac	aatcgtcctt	taagcacggc	aggcatcaac	cttacctcca	1440
tcagtgttag	agaggcacgt	ttcatttcct	cacttctgcc	gtgatgcatg	gttgatagct	1500

ctttcttggg atgtggagaa gtttgctttg aagatgattc tggcaatttt gtgatgacct 1560
cccatcccaa tggttacact atttctgtgt ccactccatt ctcttcctga taccaggcaa 1620
gtgcttgggg gtaggaaatg agtcctgccc tgcctcagtc tttgaccaag aaacggcaaa 1680
ggtctgcagt caattagaga cttggaagga agccatggct ggggtatgaa atacacagtg 1740
agggccgcat atgtgcagac accctgagta taggctgtga tacacaggct atggccattg 1800
gtacattttt catcttgtgc aagagtctac agtgtggccc agaagccagc aggttctaata 1860
gaagaaggga ggtgaaggta ggaaaatggc ataggaagac aaccacaaaa tccaatctg 1920
ccgagtgtgt gggagtgcag gctgtaccca gccagcaciaa gaaggcaatt ggcttgaggg 1980
tgtgggagac ctggggcatc tccactgcaa gatctttttg tctctgttgc tgccttactt 2040
tattcaaaga caaatgtgct ctcatacctc ttccttctct tttttgtgag ctgattctca 2100
catggattgg cctcagagac tatggataaa gcacaccttt gcattcacct ctttgccca 2160
attggataat ttacagatta gctattgacc tctatggtct ggcctgctct catttgtact 2220
gtgtgtccgg ggcctgacat tagaccccag gagggaggac catttggcct gccttgaagt 2280
ccaagggcag aaccttgtga gttaatgcaa atcaccgccc tgttctgccc ctgctggctg 2340
cctcacaacc tgctgcagag cttttctgtt tgactctgga gggacaaaca caggcgatgt 2400
cccctaggat ctcttgaga aatcagcacc tggagtgggc tctccccagc cctcatcctg 2460
agccctgctg tgtgcactgt gtctgatgga gaggcagcct ctctggatgg cagctctctc 2520
catattccaa aggcattctt ctctgttct ccttcctct ttttaaatta aatgggaatg 2580
ccactgacgt gatgtcgtt gcactgcagg atgacagaac tgttgtgtga ataccattgt 2640
atttgccaaa tgggtccactc gtcatttcag aacaaacaaa tggatggtgt ctgtaagtcg 2700
gcaaacaccg gtgacattta gccttgttta tgttcctttc cttttgctgc atatttttg 2760
ctccaaaagc tactggctga atcaacaggg cctctgaatc aggagagaag tctggtagca 2820
ttaattttag ttgctatgtc catattctct tcagactgca tgaatcctac tgctcaggac 2880
caagtctagg tgagaggaga gggcaatcaa cctctttggg ttcggatgtt gtgtgcaaag 2940
cccagggttc aaataagcag taattatctc ctattactta gtgctgatca acagcacctc 3000
tacgtctaata tgccaacttg ccctaatacat gttgactatt cttgctttag ccagagacag 3060
aaggacaaa ttttataaat aacactttat tgtcattatt ccattaaacg attaggggat 3120
gtggccctgc ccttgctttc aaatgcctct agccctgatg gtttctggat tatttaataa 3180
atctgcacat tttcttgag gtaagtgaca ctccctgtcc tagtcggtct atctggactt 3240

gcccttgtct gttcgtggtc ctcggtgggtt atctgcagct tgttaatcgt gtaaagtcaa 3300
 gagaagaatg tatacacata tgtgtgttga ataattacta ttggcatagg tatgtgtata 3360
 cacacgggtgc accaatctac agtatatata gcagagaatc agaggctaaa aatattaccc 3420
 catatgttcc agtattagtc atggattgca aaggcttagt aacttgagca ggagagaaaa 3480
 ctccctcaaa gtcataaatc ctgagtgaca actgctgctg gatgacagat cccttcacct 3540
 gtggacaacc tggctggggg tggggggctg ttccaccagc tcacctgagc atgtagaggt 3600
 gggctcctgca gtggctctcgt ggggtattact gcttgtgtct gattgtcctg tattttgtaa 3660
 cactttagaa gaatacagaa aagtgcagta attctctttc tccatagtat ttaagcagaa 3720
 atattgctag tttaatattg tgtcaggtcg tcctattaac caggagcaga tgacagtaaa 3780
 atttcagtga atagcacctt gacatctaca acttaaaaat ggtgattgaa gcaaaatatg 3840
 taaacttgta cgggggtgac gtgtgctttg gaacagagta ttgttgaagt aattagaaga 3900
 tatattaagg tgttcttggt aatgaaggca tgtaagttat aataattgta gctttctgaa 3960
 taagtgtcaa actatatctt taagtgtgct gtatgctgag ttacaagta ggtcatttat 4020
 gaatggaatg taaaataata ctaaaaatgc ttcaataact tatcttggtg ttgctaataa 4080
 aaaaaaaaaa gctgtgaaac att 4103

<210> 1349

<211> 4417

<212> DNA

<213> Homo sapiens

<400> 1349

gctggcaggg gtgctgcagt ggggctgtgc ccctgccttc ctgcacttcc tgccagggag 60
 ccactccatt cttttttgcc atctcccagg ctggccaggg gacaggggtcg tgttcacaca 120
 gtgctaaggg aacacgctga catgtgtgac atcaagaact ccagtgccca cacagcccga 180
 gtccggatgg tgagctccag ggagaccag caggcagggg gagcactgac tgagcccatg 240
 ggggaaagag gctcctgccg agcccagagc ccagagagct ggccaagggg tagggttagg 300
 agggatggag ctgggggcaa caggctagag aagagacagc tgggggtggg aggatctctc 360

cagggtcgtc tcacagcacc cagcggactc gctctgtgct gctgcagagt gactctgaca 420
gtcagagcca ggcagccggg gacaggcaca gagccagact cccttcctcc tccccctccc 480
tctcgccgtg cagtgcctac tcagtgtggt gaggtcttga atggcacggg gatggagagt 540
gtaacaacag agcgtaggg ccctgcccc gtcgggcagg aagctcggtc tgggtggggag 600
accagcccag gcagacacag cagtgcattg actgggcaca ccctggctct ggctggaggg 660
ctcagaggcc tcagggcctt ccagcactgg tctccgtgtc tgaaccccc atgggacagg 720
atgggagctg ccagcagaac caacaactca gttcctggta actccaagtg gagatgggca 780
ggaacgctcc caggaggcgc atcagcagtc agaaccaggg gcttgggcct caggaaggca 840
ggctgctggc caggccccct ggactcagga gcccaggcc aggacgttca ccagggccaa 900
agagagcaac accaacaggg ctgggctcca aggccgggccc gcctccctc tagcttccca 960
acaccagtcc tccctgaaca ttctcttcca ggaagacagg ggctattaac tacgtcccat 1020
ccgattcaca gggacgtttg aaatcaggaa ggagtgtggg ttggatccac gtttctgttc 1080
ataccaggca ggcacatcgg aaggctcacg gtcagaggat gctgggacaa acgccacgag 1140
aggttccttt ttgtctggct caccagaag agaggctcct ctctccctt ccctgcagca 1200
caacggcctg gctggcaccc aaagggcagc cggcgtgggc tgacctcaga ggagcaaggc 1260
gtgtttgcag ctctgccgt caccatccca gtggccatga caacaggtgc agcaccatcc 1320
attaaagctc tgtgtcattt cacttaattc tcacaacgac ccccgagaa agggactact 1380
atccccattt tccagatgaa aaaggaaatt ggtccttaga gtgatcatcc acccaaggct 1440
agtgcaggg ctcagattgg aacccaaggc cctccaagat ctcaagtcac agacaaagaa 1500
agcccatctc tgacttggca ggggaagggg gaggtcacac tgggagagct ggatgttgat 1560
tctgaaggcc tccccagta aaccgtcca acaacaaaaa ggggctttct gtacattatc 1620
tgcgaaaagc caagtgaggg ggaggagggg gaaagcaatc aaagcaaaga tcaatttgtt 1680
tgcagacaat gtggcaagaa gacagatctt gctggaaatt cttctgact ggactctgcc 1740
aggatcagag tatttttcat tccaagatta agcaaaattc ttccctgtc ataacctct 1800
accatctgt gtccaaactc cactatcat ttttacaccg tgcacatttt aaaacctgtt 1860
ttgcagcttt ttctctgtgt gtgttagttg acgtaacct gcctccagct ttaagaaaag 1920
cagagaagca cgagaggccc caggaggcac ctgggctggg tgagcctcag gctgggaccc 1980
tggcgggaca gtggctgggg tctagggcag ctgggaccct gcttgctggc aggggcagct 2040
gcagccgtga agctcagaga cccacggcc tggcctggac agaaatggaa aacagatggg 2100

agaagagaat gggaatttct taataaggga ttggatttgg gaagtgaagg gcgagcagaa 2160
actaggattg tgaggctctcc tggttgggggt ggctgtgtgg tggtgccatg tcggtgggag 2220
agagaagcca gtcactgggt ggtggaaatg gtggtgaaga ggtgttttgt ggatgggagg 2280
aagcagggtg gggccaagc ctgttcaatg agaggggtca acagcataca caagggaagg 2340
agcccagtct ggagtaatgg atttgtggga gagaagtctc ccgttggagg ggggagactg 2400
aagccatggg aatgggtgag ttccaccag agacagaccc aggaagagag cccaggaaga 2460
gaaggaagcc aagggcaggg ttccaggggc tgctgacttt cagggaagc cagcaaagaa 2520
gattgggaac caaacagtta ggaacataag aggggccgga gatgtagcat catggaaacc 2580
atggcaacaa gagcaggcag cagcactgaa cgccaccagc ggagactgcc gtgagatgga 2640
accaaagtcc ttgacttggc aacagggact tctcagaaca gtttcagtgg cctgtatggg 2700
tgttaggagg ggaggaagga gccaaagtac ccgggaaagt attttttatg cattttccta 2760
ctgacttctt agccttggga aacaggagct gttgccactt gtgttttacc aaggaggagg 2820
tgagggtg tggggatcaa gtaacttgca gcaggtcacg tgctgggaag ggagggtg 2880
gcctccaacc ccatctgcc atcgtcaagg tgcacggcct tcttaggagg aaggagggca 2940
tcgctgcgta ggaggaggcc ttggcagatg ttagttggag agagaaggcc aagaacatcc 3000
accgtgggggt gggagatgag atgctccacc gagcaggctg agggcccagc catggctgga 3060
aaccagccc cttggcaagg ttgacactgc cattgtcca ccatccttgg cagggatgac 3120
tgagtggcta cagcctcca gagggcccaa gtcttccgga cactgcatct ctctctcgt 3180
gtacagctca gctgggtgac ggcggctgct catgatgagt caggcatca cggggactct 3240
gcacaagatg ctaaccgagc tctgcctctt gggcctgcga agctgactac gaaccatgtc 3300
tttagcaca atgtggccag ttcagtacaa acttgtcca gatggaaaga cgggctcaaa 3360
acgcaacctt tctgacaaca gatggccttc cagtgggctg gggctgtgcg catgtgtctc 3420
tgcctgacaa tggtcctgt gaagccagac ttcctttggg gggccaatgc ctttcattct 3480
ctgggggagc ggaggagcct ggaggagcca ggggtgggctt ctgcagcacc ctagcatgg 3540
gggaggcaca cgcaacacc aggtgcccag aggccctcac agcccagaag gagcgagtga 3600
gtgaggctcc tgcattgtga acgaagctca gcaccgact ggacacaacc aaatggccag 3660
tgagggcctc ggatttcaat cagaccgtca gaggcgcca gtgctgggag gccaaatgtg 3720
gaagagagtg gctagcagtg ggtggtgaga gctgagcttt gggagaaagt gctggggagc 3780
gggcacccca gaatcacttt ggaaagcagg gagcatcgtg ctgggtggag cagctgtag 3840

agatgtctcc aacaggcctc ggggctggcc tggcctctgc agcctcattt tttcctgggtg 3900
 tttgctgctc tccaggcagc actcttcccc ccggggctct ccctgtgagt gaggagtggc 3960
 ctctaagggc cttccctgg cctgtctggc tccatcact tcaaactg gccgcgagc 4020
 ccagtacttg cacatttga aatgtaagtg ccagaataa acctgcagag acgctattca 4080
 aacagcaagg ccgaaatcaa cagattcaac ttgaaacgta aaacgcaaaa agcaaagtgc 4140
 taagcagctt tatttgttct ggaaatattg ctgcagtggg ttgaccggca aaatcaagtg 4200
 tcctgttaat agtgaacagg ctctggcta acacggtgaa acctgtctc tactaaaaat 4260
 acaaaaactt agccgggagt ggtggcatgt gcctgtagtc cctgtactc aggaggctga 4320
 ggcaggagaa tagtttgaac ctgggaggcg gaggttgcag tgagccgaga tcacgccact 4380
 gcactctagc ctgggtgaca gagcgagact ctgtctc 4417

<210> 1350

<211> 4281

<212> DNA

<213> Homo sapiens

<400> 1350

aatccaccta agccgtgtcc ctagccctgg ccccgccctg atgttgccgt gtaactcagt 60
 tcccccggtt ttataggcta ccgccccagc caggccccgc cctctgatgt ggccccgccc 120
 cccgacgctg actttttctg tcttcacttt agccctggct ccgcccctag ccttggccccg 180
 cctcagcgcg gactctcagt ctctgcgcct gccacggcct cgtcccgtc agccctggcc 240
 ctgcccctgg agccgactct ctccgcctcc gccccggctc cgccctggca ctgactgtct 300
 ccgtcttcgc ccctgcctg gccccgccc ctgcctgtc tggccccgcc ccgccgtct 360
 ctccgtctcc gcctccgccc ccggctcctc cccggccccg ccccggcact gacattctat 420
 ctctctcccc tctccgctc tgcctcccc ccggccccgc ccctgcctg ccccggcgt 480
 ggctccgtct gcgcctcagc ctccggcccc cctccagccc tggccccgcc ccgccgtct 540
 ccccttctcc gccctgccc tggctccgcc cccgcctgcc cgcgcaccgc agaaggcctc 600
 ctggaacttc ctggacagct tctcgatgac gctgtagctc tccacgtaat cgacgtgttc 660

gtcctgcggc tcgctggcga tctgccgcag cgtggccttg tccacgtgc cactccgat 720
ggcgaacaac tcgacgccgc tggcccgggc ccgcgcagac acgtcctgca cgctgtcctg 780
gggcctcccg tctgtcacca cgatgaccac ctgcgacacg cggggcggtg tgacaccggg 840
ctcccgaag cccacgggac tgtccaggag aggaggctga ggcccggaga ggcgggagga 900
ctgccgggtc gcacagccag gcggcacccg ggggaagagg acccggtgg ccgaagagga 960
gaccgtttc ctctgactga gagacgtggc tggggggcctt tccatctgct tcgcctccct 1020
cgggcaggca gctctgagat gcccgagggg atgtgatgcc ccatcgccaa attgggggtct 1080
ctaaggctcag ggccatgcct tcccctcaga ctgaggcggc tgagggcagg gtcctcaggc 1140
tgatggctgt gggagtcgtg ccacgcccct cgtgcccccg ggaggcccgg ccggggctgg 1200
gtggggggat ccggtggttc cacatggtgc agttctgcgc tttggccacc agatggcagc 1260
cgaagctaag ggatggggct gccgtctccc gtcttgctgt ccttgctcct gtaagaccgg 1320
ggaccctgga ccagtaacc gacggagggc cactcccatg tggatgcca agggaccaac 1380
ccaagaaaga tgccgccctt atctctctcc actccccgt atgatacatg cccctgccag 1440
agagggaaag aatctgcctg ctcccctccc actaggctcc tctggtctgt accctgaaa 1500
gaaagagggtg gcggactctg tcaactgagat ccggcttcgt gacccctgt ctgcaccgc 1560
cctgaggcta gggcgctccc agctctgccc agtctgggtt aggcattcag tcccgctttg 1620
ctgcttctct gcttctgact tgggtctgtt tctgagtcct ggggtccatc cttagcccca 1680
ggctctgaca cctgtcctg atgacaggca gttgagacag gccgtgttta gaaatgcagc 1740
tccacaagct acaggtcacc ttctgagcc tcagtgtctt caactgtaa aagggttgtg 1800
gtgaggttga gtgagatgac tcctggttag aagccagaag gggcaactat tatttttacc 1860
atcattacc tgggctacct ggggagtgac tttgtacaat ctcttctct ccaggggcct 1920
gggtccttg ctctgaaaat ctactgtga ctattcgctg ccatcccgag gccactgcc 1980
tcctcgagtc cctactcccc tcctgcaac ccagctttca gattgtctac cttgctgggt 2040
cctccacag gtgaactcca ggctgaacac ctggagtctg gtgccagctc cccagcgcc 2100
gctgtgtcac ctgctggagg agctctctcc tcaattgccc accccagcc accacccca 2160
tctccttcac cctctccacc acctcaacca tcagcttcat ctacagcacc ccgtgctgaa 2220
actttagtt ggccccaaga ccgacaggct gcctgatacg tcatttctct aagggtggt 2280
aatggctggg attatatgct gttgtctctg tgaatgcttt tcccattat tggctgagca 2340
agttgcttaa gcttcttatg cctcagtttc accatctgta aatggggat accacctccg 2400

agcagaatca tgttcattta tccactgtgt gctagagagt ggggtatgga ggagggataa 2460
gaaagaacct cccctgagct ggggccctga gcagggaagt ggcgactcgg gctaacgaag 2520
gctgcagtgg ggaagtgtct gagcctgtgg ggggtgccaca ggaacagagg acacctggct 2580
tagcctcagg ttctgtgtct agccctgaac atgacagtga ggatacaagt cctgggaaac 2640
gctcagccct ctgcctggag ccctcactga cagcacaggt ggcagcacag cccttcatt 2700
tctgagcccc tgccctcgga gaattatgaa attaaaaatt atcaaagcc atgatgggaa 2760
gccttatgct ttgtaactca gtcctcagca gcacttggag aagggtgttat cattactccc 2820
attttacagg tgaggaaacc gagcaccagt gacatgacgt cacttgctcg ggggtggcaca 2880
gctagtatgg tggagcaggg cgtgaaccca ggcaggctgg tggcggaggc cacaccttca 2940
ctcctcccat aagcatctgg cctgtctgca atgtcttcaa ggggctcaga ctggtcggga 3000
accaagggtca actaaactga aatgattcta tgaaatggcc acctcacggg gcatcatggg 3060
aatcaaagtg tctgcaggca aagctcataa ctccgagcgg gagcctccaa acagcagcat 3120
cctagcaggg tggcgtgcac gtaccttgct gatgtcaggg gacctggaac gaccaccctc 3180
tgcctcgccg aaggctttgg tgatagcgaa ctggatggcc aggccggtca tgggtgcctgt 3240
ggacagcggc tggatacggc gcacagcctg cagcagtgcg gccttggaga catgagcccg 3300
cagcgagaac tcctgttca cgggtgtggc atagttgacc atgcccacc gggtggcatt 3360
gggccccacg tccagcgact cgatgacctg ggacaggaat accttcactt tctcaaattc 3420
aacaggccga acgctgcgag agctgtcgac aacaaacacc agggtcacac aagggccatc 3480
cacggtgacc agcgggtgaga aacgcaatgc tgtcctcgtg ccatgctgga ggtgaacgag 3540
gagaacgtga gctgggggtct cctcaccaac tgctcccccc accccaaccc ccctgacggc 3600
cagggctgtg tccggggctc agggcacaag gctccgtag ctgggcagca gctggcccat 3660
gaaacagccc tttagctcc acctctgaat ggcagttcta tgggtcctc ggaagaacac 3720
aggcgccttc tctgtgtcac ttctccgctc attagcggag ctgcagaaat aactacagg 3780
actcaaaatt gagaacagtg tgtccggtat gagccagaag gaaaaaaaaa tgcacgaagg 3840
ggccttctgc aaggttgctc acaagtcaaa caggcagctg tgaagggtc tgctgttccc 3900
tcctcctgtt ttcacatccc tcgggcttcc agaaacttaa agccgtagt gtttcatgca 3960
agagagagca tctgtgatcc acggagaggc ccctgggcag tgtggttcag tgggaagcac 4020
acaggactcc ctccccagtg ctcccaggat cagctctttc cctaaagagc aaacctgggt 4080
atctcgcaat gacctagcta acacaaatgc aacatcagcc ggggcagcct gcccccttca 4140

ctctttgccc accatcagct gtttggcagt atccatatac gcctttacca gtattttattt 4200
aatcttttttg tttaattcac tctaaaccaa ctcacttctt aaaaatttct ctgccttata 4260
agaaataata gccatgaaat c 4281

<210> 1351

<211> 4215

<212> DNA

<213> Homo sapiens

<400> 1351

acttggcggg ccctggctgg ggatgtgcga gactgggcca gtgccattcg cgtcgcagct 60
ctggactgca tggaagagaa gaaccaggcc gtgtgccatg actacgacat ccacttctac 120
cccaccttcc ggtatttttaa agcattttaca aaggagttta caactggaga aaattttaaa 180
ggacctgacc gagagctgcg aacagtcaga cagacgatga ttgacttcct gcagaaccac 240
acggaaggaa gccggccccc tgcctgcccc cgccatagacc ccattcagcc cagtgatgtt 300
ctttcccttc ttgacaagcg tggcagccat tacgtggcta ttgtctttga aagcaacagc 360
tcctaccttg gacgggaggt gatcttagac ctgatcccg atgaaagcat cgtggtgacc 420
cgagcactgg acggggacaa agcattttctg gagaaacttg gtgtttcttc agtcccttcg 480
tgttacctga tctacccaaa tgggtcgcat ggattgatta acgtcgtgaa gcctctgcgg 540
gccttctttt cgtctttattt gaagtcattg ccggatgtga ggaaaaaatc gcttcccttg 600
cctgaaaagc cacacaaaga agaaaattca gaaatcgtgg tttggagaga atttgacaag 660
tcgaagctgt acacggtgga cctggagtca gggctacact acctcctgcg ggtggagctg 720
gcagcccaca agtccctggc cggagcagag ctgaagacgc tcaaggactt tgtgactgtc 780
ttggccaagc tgttccctgg acggccgcca gtcaagaagc tgttggagat gctgcaggag 840
tggctggcca gccttcccct ggacaggatc ccctacaacg ccgtgcttga cctggtcaac 900
aacaagatgc ggattttctgg aatattcctt actaatcaca taaagtgggt tggatgtcaa 960
ggaagccgat ctgagttgag gggttaccg tgttctctct ggaaactgtt ccacactttg 1020
actgttgaag cctcgacca cccagatgca ctggttggca caggctttga agacgacccc 1080

caggctgtgc tgcagacaat gaggaggtac gttcacacct tctttgggtg taaggaatgt 1140
ggtgagcact ttgaggaaat ggctaaagaa tccatggact cggtgaaaac cccagaccaa 1200
gccatcctct ggctgtggaa gaagcataat atggtgaacg gccgcctggc aggccatctg 1260
agtgaggatc cccggtttcc aaagcttcag tggcccactc cggacctctg cccagcctgc 1320
catgaggaaa ttaagggcct ggccagctgg gatgaaggcc acgtgctcac attcttgaag 1380
cagcactatg gccgcgacaa cctcttagac acgtattccg cagaccaggg ggattccagt 1440
gaaggaggaa ccctggccag gggtagaggaa gaggagaaaa gactcactcc cccagagggtg 1500
tcccatggag accgagacac ccagagcgtc cgtccacctg gtgactggg cccaggcct 1560
gcccttccag agagcttgca tcacagcttg gacgggaaac tccagagtct ggatgggccc 1620
ggggcccaca aggaggtggg cggggccgca cccttcctcg gggttgactt ctccagcctg 1680
gacatgagtc tctgtgtcgt gctgtacgtg gcttcatccc tgttcctcat ggtgatgtac 1740
ttcttcttcc gggtagagtc caggcggtgg aaggtcaagc accaccacc ggccgtgtga 1800
gtgcccgggt gctgccagcc acggcggaag ctcccttggg ggcagccctg ccccggtcca 1860
cctgcagctt taatatttat gatcagggat ttataaaca tgcgggcctg gtttcacatc 1920
ggatggcacc ttttggcttc aaagtccctg ttttacaac gctcttctaa caagggaaga 1980
acacggggta attttgtggg gatatttgca ttcctggcgt actcaagtct gttcatgctc 2040
cttttgcagg tcttacagca aaaagacttc tgtattttta ctcttctaga tgtgaaaaga 2100
gggagcagag tccaggccag atagtcttcc ccacacactt tcctctcggt tcctccactc 2160
cgcccatcc tgcagggcct tgtttttgta tttggagaac ctgcgccatc cccccgcgg 2220
ctcctggctc ccccccccc accttggccc tccctgcacc ctccactccc ctgcctcccc 2280
ctccccccgc tccccccag cccctgctc caggctgcca agtgttttcc tttagccggg 2340
cggggacaga cagagccgga agcgcagtcg gcctctgcag cccctccaag caagtgtcc 2400
agggactatc ctgtgtttgt agctgcttcc ctagggcagg ttcctgaggg ctctccttgt 2460
tcctccgggt gttcgacacc agacgtgggg atttcaacag gggaggagcc aaggaattct 2520
gtggctgtgc tgcgtttcag aaaataaccc ccagaggcct tgggctgtgg acctgggggt 2580
tggaaggatg ggggctcatt taaccctcag aggcagcgcc tttgtctgtc tatctggtga 2640
caagagagag acaagtaa at gggggccgtt gggacggcgg gtgcctggag ggcagctctg 2700
ggctcagcgg gcagtgtta gagcacaggc ccctctgttg ggggatgggg aggagagcag 2760
tctgcccttg ggagcgtagg cccagggag acttctaaag cccccctgt cgtctgtctt 2820

tcaccagca ccacagaggc acctgctgca cacacaagca tctcactcgg cccacggagg 2880
gggccaggct tcctttgcct gaagctgttt tgggaagggt ctccacacag gcactgatct 2940
cccaagcttt ggtcatgatg tcttttacca tttgataatt ttaaacattg tttttaaac 3000
caaaacattt agtgggccgt tgcctctgaa gatgtaaaca aacaaataca ctatttctgg 3060
gaacatttat attgagattc tttgtggcta ttgggtgtgc tcacaggcaa aatttgattt 3120
ggctaaaata ggctcagatg tatttgtgtg cccgtgtgtg tgtgtgtgtg tgtgtgtgtg 3180
tgtgtgtgta tgagagagag agagactttg acggtttag atatttttc cgctttgcct 3240
actttatgtt gtataatcat gtgtttacta acaagttgat gacatggatg tattcataag 3300
accatgtaat attgatgtga ttgttgcgc ttgagaaaaa aaggcaacag ctgattcttt 3360
caacaactgt cacagaatgg ctgggctgag aacgctgccc agggccctgc agctggcggg 3420
agagggtgtc ggtgggagcg gtgtctggtg cgtcagcctg ctgcttcgtg tctcactcga 3480
gagttgcttc tggtttcaca ctttttaacc cctctgtgct ttagcagccg tgaccttgcc 3540
ttcattgctt catccagtgc aggccctgggt tattgaagac accaaagtgt ttctcttcca 3600
gtttgaaaac caggcaggtt tatacgtggg ttccagtga tttgcctttg aacccttcaa 3660
actaaacttt agccttttgg ctgggtgtga atgtctttag ctggggtgac ctggagtga 3720
ctgggacggt gttgtggttt accgtctcca gcttcagcct ttccagaaac ctttgtggag 3780
ggcagtgttg gctgcaggtt tcatcatatt gcagtttgag gtcaccacta tttggggaac 3840
aagcttgcgt cctgctgagg ggcaggattt tcagcagagc gtcggtgggg ctgggccgctc 3900
gtggaggtgg ccccaggagt catatggcca tactcagaca caccttgtgt ggcctgctca 3960
gagctggatg ccacctttag gcaatgttta gagtctattt tctaaagttt taagtatttt 4020
aagaggtatt gagactaatg aatataatag ttcagtaatt taaatgctta tttattttca 4080
gtggaaggat ttttattaaa aagaagctaa ttgacatgga aatgtcagtg aaatttctta 4140
cctgcaagga aagtgaacat tttgtattta agtaaactat aatgtgcaca ttttaataaa 4200
gaaatctgac atttg 4215

<210> 1352

<211> 4513

<212> DNA

<213> Homo sapiens

<400> 1352

agcagtcgcc	tcctccttgg	caaatagtc	tcggcagggt	ccgagttctt	ggataattcg	60
agagaaaagg	cacgataagt	tgcagtacga	ggacacggaa	acgaccagga	gaggaggaca	120
gggagcgaag	tttcctcaat	agtgtgtgaa	gttagttaaa	aactccctcc	ttcctcagga	180
tccctccgcc	tgcggtagcg	gtggtgaggc	cgagggagcc	gccattttgg	atgttcggtt	240
cctgctgcc	ctgctgccgc	cgccccggga	gctgctgggt	tcattcgagg	tttcgggccc	300
tttcaggggt	ccagtcccag	gctgtgggtg	ttgagaagag	aagacagaga	agctgggcca	360
ggagaggccg	ggagccccag	gggctgctcc	gacttctgga	gggccgaccc	cgaggcctcg	420
gaccgggagg	ttccgcgcgc	cgcggcgttc	cgtgttgttg	cgttgccccg	ccgctcctgg	480
ccctgcggac	gtcagcgtct	aataattctc	ccggtcttcc	tgattgcctg	aaagagtcgg	540
gacggttcgg	ttgatttgtt	ttcccgttta	ggactcgggt	taggagatcc	atcgaaccac	600
tcgctcaggg	taatgtttat	gaagcagatt	atgtttatga	agcagattaa	atggcttttg	660
ggaggcaaga	gctgtcaa	gttttctcat	atgtggattc	cctccctgtg	ctgaatactt	720
agcttttttg	tgcttactga	cacttgtgtg	gtattttttt	ttctccccta	ttatatatcc	780
ctgagcacgg	aaatctgtcc	atggagaaaa	atattaatct	gaggaaactgt	caaacactga	840
acacctatgt	aatgctcact	catttaagga	tgccagcccc	catcagattg	cgggagctga	900
tccggaccat	ccggacagcc	cgaacccaag	ctgaagaacg	agaaatgata	cagaaagaat	960
gtgctgcaat	ccggtcatct	tttagagaag	aagacaatac	ataccgatgt	cggaatgtgg	1020
caaaattact	gtatatgcac	atgctggggt	accctgctca	ctttggacag	ttggagtgcc	1080
tcaagcttat	tgcctctcaa	aaatttacag	acaaacgcac	tggctattta	ggggcaatgc	1140
tgctgttaga	tgaaagacaa	gatgtccatc	ttctcatgac	caactgtatc	aagaatgata	1200
ttaatcatag	cacgcaattc	gtacaggggt	tagcactttg	taccctcggc	tgcatgggct	1260
cctcagagat	gtgcagagat	cttgaggag	aggtagagaa	gctcctgaaa	acctccaact	1320
cttacttaag	aaaaaaggca	gcactgtgtg	ctgttcatgt	catcaggaaa	gttcctgaac	1380
ttatggagat	gtttttacca	gcaacaaaaa	atttattgaa	tgagaagaac	catggtgtcc	1440
tccacacatc	tgtagtcttc	ctcacagaaa	tgtgtgagcg	aagcccagac	atgcttgccg	1500
atttcagaaa	gcttgtgccc	caattagttc	gtatttttaa	gaacctcatc	atgtccggat	1560

attcaccaga acatgatgtt tctggtatca gtgacccctt tttgcaggta cgaattttgc 1620
ggttattaag aatttttagga cgaaatgatg atgattcaag tgaagctatg aatgatatat 1680
tagcacaggt tgccactaat actgagacta gtaaaaatgt aggaaatgct attctttatg 1740
aaacggtttt gactatcatg gatattaagt cagagagtgg attgcgagtc ctagccataa 1800
atatcctggg tcgtttctta ttgaacaatg acaagaatat tagatatgtg gctctgacat 1860
ctttgttgaa gactgtacag acagatcata atgcagtaca gaggcacaga agcacaattg 1920
tggactgtct taaagatttg gatgtctcaa taaaacggcg tgcaatggaa ttgagttttg 1980
ccctggtaaa tgggaataat atccgaggca tgatgaaaga attactttat tttctggatt 2040
cgtgtgagcc agaatttaaa gcagactgtg catctggaat ctttcttgct gcagaaaagt 2100
atgcaccttc caaacgatgg catatagaca caattatgcg tgttttgaca acggcaggaa 2160
gttatgttcg tgatgatgca gtccccaatt taatccagtt aataactaat agtgtggaga 2220
tgcatgccta tactgtccag cgcctgtaca aagcaattct tggtgattat tctcaacaac 2280
ctttggtaca agtggctgca tgggtgtatag gtgaatatgg tgatcttctt gtatctggcc 2340
agtgtgaaga ggaagagcct attcaggtaa cagaggatga agtgttgat attttagaaa 2400
gtgtccta at ctcta atatg tccacctctg tgacacgagg ttatgccctc actgccatta 2460
tgaagctttc cactcgattc acttgtactg taaaccgaat taagaaagtg gtttccatct 2520
acggaagcag cattgatgtg gaactccagc agagggcagt agaataat gcacttttca 2580
agaaatatga ccacatgagg tctgccctac ttgagagaat gcctgtcatg gaaaaagtga 2640
ccacaaatgg ccctactgag attgtgcaga caaatggaga gacagaacca gctccactag 2700
agaccaaacc gccaccctct gggccacagc ccaccagcca ggccaatgat ttattggatt 2760
tgttgggagg aatgacata acacctgtta ttccaactgc gcctacaagc aaaccatctt 2820
ctgctggtgg agaacttctt gatgtgtgagg gagacatcaa ccttacaggt gctccagctg 2880
ctgctcctgc ccctgcctca gtccacaga tatcccagcc ccccttcttg ttggatgggc 2940
tttcatcaca gcctctcttc aatgatattg ctgcaggcat cccctccatc acagcataca 3000
gtaagaatgg cttgaagata gaattcacct ttgaacggtc aaataccaac cccagtgtaa 3060
cagtataac gatacaggcc tccaacagca cagagctaga tatgacggac tttgttttcc 3120
aagctgcagt accaaagaca ttccagctgc agctcttgtc tcctagcagc agcattgtcc 3180
cagcatttaa cacggggacc atcacacaag tcattaaagt tctgaaccct cagaagcaac 3240
agctgcgaat gcggatcaag cttacatata atcacaaggg ctcagcaatg caagatctag 3300

cagaggtgaa caactttccc ctcagtcct ggcaatgagg gtttggcacc attctcattc 3360
tttatcccac tcaatcaaag gaactctggg aaggaggttg tgattgctgg caagtccccc 3420
ccaactgtac cacgggcatg aggagctgaa gagaactgct gaggaggatt ttcctaaagt 3480
tactgctgac cttgaagcat tgtaaagac taatgtcctc tcctccactg ttgaggctgg 3540
ctgcttctgg aggctacttt gcactcttcc tcttctcctt tttccgcact tctccacccc 3600
tcccacattt acagccagaa tcaacattcc ctgggcccct gaggaaataa gcagctggtc 3660
tggaggagag gactgcaatc catggcgaaa aaacactcac tttgtctctg cagcaaagag 3720
ttggcccctt tttctactgt tgtttctctg tggactgggc aaggtggggg atttattcct 3780
cactagctgg gttaccatct tcaggcactt ttaacatctg gcattcgga tggaaatgta 3840
ataatggaca ttagggagcc ctgccttttt ctactgggtc cccaatgtt tgaaagaggc 3900
attaggctcc tggtagcctt ttctgtgcat tgctgtatac acacagacac acacatgtat 3960
gtttgttacc aagaactggc cagaccttgc gagtttattt gtaaactg gacagatgga 4020
gttaaaaaga gcttttgtt agatttggca tgaaggatat ggtgctctat ttgtaataga 4080
aacttccaag gctcttccag ctccccttcc tcgccattct ttagctgtag tcatgaatag 4140
tctccatgat tttcaaaatt gattcccttt aaagtgcaaa atggtcacct tctaaaagat 4200
atattcatag ttattaatga ccctattccc accacaaatt ttaaagtgt cctaagccca 4260
taacttgcct gtttgaacta tggtaatggg tggaagagga gttcaccagt ttcaaagatc 4320
agactctgta tcaaaagtac ctttggccctt aggaagagtg agtattggag tcattcttacc 4380
tattactcca aacctccctt tttatttctt gagcctggct tggaccttgg cattccgttt 4440
gaattccttc taactggaac atttgtgttg tatctgtaac actggcactg aaataaagac 4500
cacacggtta aag 4513

<210> 1353

<211> 3214

<212> DNA

<213> Homo sapiens

<400> 1353

agatccagag tggccaccgc cggatgggag tcgggggaag ggaggcagag aagcgggccc 60
tgaggacaag ctctcagtgc ttctgtggga agtggcggca agacggcagc tcccagcggg 120
ggatggaggc cgagtcagtc tgctggtcac tggaggccag gatgctgcct aacacagccg 180
tcccgtccg ggcctcacca ccagggcggc tctccccact cccggcctgc tgcccacaca 240
gactgcgggg ttccggggga gcaggacca ggccgttctg cgcctgtctt cttggaagga 300
gcaggccgga gcgcgggagc gccgtgtagc tgtacctgcg aaggcacagg attccacggg 360
aagatcccgc agtttcgggc cgtcgtcatt gtttttatac ctgtggcaaa tggcatgacc 420
agacacacgg ttatgtctgg agaaaccct gtagaggagc aggaggttgt ggacatgctg 480
tggcccggac agtggctgcc gagcagttgg agcctgcacc cgcccaactt ggctaaagaa 540
gtccccatac tctctgtgga aaagatttcc agaagctgtt gtgtcaatat caaagcctca 600
aaacaacaac aacaacaaca aaaacatgaa attatcaaca ataaagatca tccttgagtc 660
tgctttgaaa agtagggtga aattctgcag aggcatcaaa ctggcaagat accaccctca 720
tagccagatc tgcaggtctc agccatcatg ccagggaata tgctccattc accactcctc 780
agcttctgct tctggtttca gaggtctctg tattggaggg gctttaaagc aagaagggtc 840
tttaccact tactcttatt cacagatgtg aatatgtagg tccagtgggg aaagtacat 900
gtcctaagtc agaataagat caacaagaaa acagggccca aaatgactta gcctctagtg 960
tataatgggc attgatgagc tactggaaat acagagatga agaaaacaca gtcccatctt 1020
caaggagctc aatctagcaa gggagactct ttgtaggtgg gaccgggctt ccctgcagca 1080
gaaggaagct tgaaattggt aacgagcctc agaagggaca gaggcaggcc accatgctac 1140
cctgagagga tcgcatgtgg acacggggct atgacctggc cctgctttga cccactagct 1200
gtgctgtagg gccaggtgga gcctggagtg gcctgtgcta aggggctact atgagctctt 1260
tccactcccc caaggcattg cataaataat gtcactttct gtttgacag caaaatcagg 1320
gacacaattt tctagaacat ggggtgcctc ccctcccccc agcccaacag aagttctaca 1380
atgactgatg ggcccttggt tttgtttgag acggaacacc ccacagggtt ccgagtgggtg 1440
atttgtggcc cacaggccac tggcaagtgg aggcagagct gcagagccct cgggagccac 1500
agagggcctg ctggccgcca cgacatgcca actcagctgc tgctggccct cctgtgggagc 1560
gcagtgctag tgatgtgcag aatcttagga ctagtgccaa ggaacctata aataccctgg 1620
gtgaccaggc cgtgcactgc tgtggtggcc ttcacagtca gaagatgaca agctgagaag 1680
gggagaatcg gcccaaggtg agatccacag aaaggccagg gccaatatgc ggccagcacc 1740

tcaggctggt ggtggtctta cgttgaccat gccagaggcc agtccttgat tgctccaaac 1800
 cctctgttcg aggggttccaa atgaaatgag caggctcctcg tgtcaggacc taggttagtt 1860
 tctgaaaaag catgaaaagc aggcctcctg aacttccccg agtgactgat gcaaagtgcg 1920
 tcctgcatgc ttcacagcac catggagagg atcttcaggg gcaaactgca gactatctga 1980
 atgacggcac tgaccatcag caaacgcag agctgcctga ccaagaaatt gcgagacaga 2040
 agcaatgctt gcaggcgaag aagaaggggc cagacacagt ggctcacgcc tgtaatccca 2100
 gcactttggg aggccaaggc aggcggatca cttgaggtca ggagtttgag accagcctgg 2160
 gcaacatagt gaaaccctgt ctctactaaa aatacaaaaa attcgccagg catggtggca 2220
 ggcaacctgta atcccagctg cttgggagac tgagacagga gaattgcttg aaccaggag 2280
 gcgaagggtt taacgaactg aaatcgtgcc acagcactcc atcctgggcg acagagttag 2340
 actgtctcaa aaaaaggagg agaagaagga aaggccaagg caggaatgaa acaggccatg 2400
 aatgttgag tgaagcaact ggcctcctcg tgctaagcgg ctactgtgag ttctttccac 2460
 tcccccaaga cattgcataa ataatgtcac tttctgacac tcaccccgct gaatgtcctg 2520
 cctctgctca aggggtggtat gatggggact tggcagtgga ggggaacagg gaaaccagac 2580
 atggtggtct ccccgcttcc tggctacaag tccctctgaa gaaatccaaa ggagtaaaga 2640
 gcttgagag taggcctctg tagggtgcaa gggcacagct ggagacggag ctctgaggc 2700
 tgcagctgat gctgcccgt ctgcctgaac tgcacaaaaa acgtgatgag gccatagcgg 2760
 gagtccacgg aggaggatgc ctactgcccg acctctagca gagactaagc aaggtgcatg 2820
 aaaacttgaa ccacatgtgt cacacccatg accactacat gaagatggcc caaacctgg 2880
 cccaggaatt gaagaaagac tcttccaatt tgctgtaaga aaatggcca gggggcaagc 2940
 acggtagctc acacctgtaa tcctagcact ttgggaagct gacgcaggca gatggcttga 3000
 gctcaggagt tccagaccag cctgggcaac atggtgaaac cccgtctcta caaaaatac 3060
 aaaaattagc cgggtgtggt gatgcatgcc tgtggtccca gctactcagg aggctgaggt 3120
 ggaaggattg cctgagtctg tggggcagag gttgcagtga gctgagatca caccactgca 3180
 ctccagcctg ggtgacacag tgagacccca tctt 3214

<210> 1354

<211> 3369

<212> DNA

<213> Homo sapiens

<400> 1354

cttgccaggt	gaagagcatg	ttcagggagg	gaacaaggca	ggaaacgggg	gtttacagag	60
agaaggaaga	gaacaaagag	aaggctgctt	agttggggag	cagggcggtc	cccgaggcc	120
tgaggaggag	tgtgggcggt	caggcccca	gccctgcctg	accctccctc	ctgccccga	180
ccaaggcttc	ctggggctga	aggaagttag	tgcagccaca	ggccaacact	tccttggtg	240
accagacgac	ggaaaatgtg	tctggctgcg	ttcaggtgtt	tttccaagtt	tgaaaccctg	300
gaaagttttt	cctctcagaa	caaaagcttc	aggaggaacc	tgacgggaca	agacctgcgg	360
gttcctaggc	cgaggagagg	gccaagcgga	gactcatgca	ggcaccggaa	gctggacggc	420
tggtggacgg	gccctggagg	catttccaac	atttggcaaa	ctctttggag	ggctctgaat	480
gtgagggtc	tccctccagg	tggtcagtc	aggagcctcc	caaccacag	aaggcaggga	540
gaagggcagg	tcccttgttg	ctgaccccc	tgcctgcctg	cccttgggga	gggacagtgg	600
gatgcgcccc	cggcccagcc	caagcttctt	gctgcagttg	cccagttcct	gctggcagag	660
ctgtgcgggc	tgcgaggaca	gagctggggc	aagcaggacc	cgggtgggtg	ggaggacagg	720
cgcgaggccc	tccacctgca	accaggga	gctgactggg	ccgtgaggct	gggctcagga	780
ggtacagcag	gctccctggc	tgctgggaca	tgtctgtagt	cactgcccc	gaggcctggc	840
agtgtgtggc	caggaggaca	gctgtgctct	ctgggtgcaa	atcccataga	cagactcagg	900
agtcaggggga	gcctccagca	aagtctggcc	aggacagggt	caggactccg	tgacgttggg	960
caagctactt	cacgtctctg	tgcctcagtg	tcctcatcta	ccagcaaggg	gaggcagaag	1020
cagggttggg	accactccac	accacccctt	ctgtgactgg	ggaagagcca	gctgcctggc	1080
tggatcacag	cccagacccc	agagctcctt	ggaggtgttg	gaagtgcctc	catctgtgca	1140
gacagctgtg	caagtcttac	ctgacgtgga	gttcacgttg	tggcagcaac	acaggaagac	1200
acaagggaac	ggtgggcgct	cagtgaccag	ggcaggcggc	caggccaccc	ccaccagga	1260
atggacatgc	tgcaggcccc	cggggacaca	gccagccatg	gggggtggca	agcttctaat	1320
gcctgtaacc	tggggaccac	ctggggcaga	cctgcagttc	tgcgttgggg	caatcagagc	1380
caggaccctg	ggctctgttc	tgcaggcctc	aggccttcaa	catcctggta	gggagtgtgt	1440
tcagagccac	tcaggctcca	aggcccagcc	atagaatgcc	tcagggagca	ggggacctct	1500

ggtgggggtg tcgctcctgg ggtgaccccc tgagaaagag aggagcctgg cctggcgtgg 1560
gactcagcag tgaaaccca caatcctggg ccagcaggtc atgcctgtct tcccaaaagc 1620
tcaggctggg tgtgctgagc gggctgcacc ctcggtggg tcctgagcac ctgtaccccc 1680
accccagctt cctcaggga cccaggccct gcacagcaca acgggatggg gtctgggctg 1740
gacaatctga ctggccaagc aggctcagga cactcagggc tggcacctgg caggggacag 1800
tgaacgcagg gggatgaggt gaccaggcca ctgggggtgg tggcagcgga gaagtgggta 1860
gaggggctgg gggctaggcc gtggggacgt gggacccccg tcacctctc cagctggctg 1920
tgcacgtgct gcacaatcag gtcgatggcc accgtgttgc cgctccctgg ggcgggatgg 1980
gggggcgggt gaccgggggc tgggccgttg gcctgcccga caccaccca acaggcagcc 2040
cagcaggctc acctctgggg accacgatgt ctgccaggcg catggtgggc tggatgtact 2100
ggtcgaagga gggcttgaca aacttgttgt actgcttgat gacacctcg atgtcccggc 2160
cgcgctcact gatgtcccgg cgcagccgcc gtaccaggcg gatgtcggag tctgtgtcca 2220
caaagatctt catgtccagg agctggtgga gacagcgggc cagtgagtgg ccagatgcca 2280
gcagtgggca tggagacact gggaccagcc cctgcactga ggccgcctgg tccgtgggcc 2340
tggccagagc cacttcccca gggcacctg gcagggtgggg aggagtgggg aggtgggggt 2400
gtctgcacct ggtccttggg cctggcccga gccacttccc cagggcaccc tggcaggtgg 2460
gaaggagtgg ggaggtgggg gtgtctgggg atgcggtgct gcccgtcagg ggcttaggtg 2520
aagaggcatg gcatggtggc tggctaagga atcaggcagg aatggggctg ggcacatgtg 2580
atctccttac tttgcttggg gtaacttgca ccaacacact ggggaatggg ggacgtggcg 2640
agtttagggg ctgtcccat gctcagcaca cagtagttgg cccgtgaaga ggccttgtgg 2700
aggctggggg ctgctatgtg ccgatgatg gagtcctctg ggcctgtaca aggggcagga 2760
cctgggccct gggatcaggc caacctgagt cacactcagc tgtgtcctga aggccccctt 2820
gagctacagc aaaatctctc aaacacacca gccctgggtc ctcacctgtc cgtcaggact 2880
acggcaaggg acgagaacgc caaggacact ccaggtatgc gcacaggcct cagccggtgg 2940
agaggaacca ctgcctcagg cagccacgct ctgccttttg gggccggcag atggaccag 3000
ctgtggcatg cctgggggtt gggttggggg agggagtggc tggcctaggc ctatacagtg 3060
tggaggcctt ggggacaggg caggaggacg cacacctcat ggacaggcg gccagggctg 3120
agataccagc ggggtgggta ttcccggcgg gtgcttacct ccaacagtgt cttgtcagca 3180
aaggccatga tgccctcaa gatgatgacg ttgacccat acagtgtttt ctgtgaagaa 3240

accaggagt tgcggagcct ggctcatgtg cctgcagccc cccgaggccc cctctgcagg 3300
gccctggcct acccagtcct tcttccggct gtgcgtggtg aagtcataaa tgggcacctt 3360
gacactctt 3369

<210> 1355

<211> 3861

<212> DNA

<213> Homo sapiens

<400> 1355

gaagtctctt ttgcatata aggtgacatg tacaggttct ggggatgagg acatgcgtat 60
ctttaggggc tgtactcagc ctccacact gggccagggt gtgcactcac cattgatgaa 120
agctcagttt atcaccacc attcccggaa acaggtaaag ccaggggagg gctgggggag 180
atcctccttc accagagctt gcagggacca tacaaccatc ttgagtggga ataggtcttt 240
cagtgtgtt gctgtactc ctgcaaaaca caaacacatg cacacacgca cgcacactca 300
catgcacact cacacaggca tgcacacact cacgggcaca cacgtgcaca ctccacacac 360
tcaaatgcac acacgcatac tcacactatc acacatgcac actcacgctc acacacatgc 420
acacactcac gggcacactc acacacgtgc aactccaca catgcacaca ctcacgcaca 480
ctcacactat cacacacgca cactcacgtc cacacactca catgcacact catgcacact 540
cacatccaca atcacacaca tgcacactca cactcacact cacatgcaca ctcacacatc 600
cacactcaca cgcacactca cactcacaca cactcacatg cacactttct tatcactagt 660
aagccatctc gctggttaca tttcatgcc a gtttattttc tccagtga aa acccagact 720
ctgtcactag agctggtctg atttgaaggc cttcaccaac ctcagtgcc t gtagaaggg 780
agagcactgg gaatcacacc aggcagtgg a ttgcggccct ggttctgcc ttcattgttt 840
aaccttggct aagccacttc atttctccag gttcagcttt tatgccccaa tctgagtttg 900
tctagagctg gatttccata gaatgtggtg tatagcataa cagctgtctc ttgtaaagaa 960
agggtatctt gaccgaatac actgggaaac tgtttcagcg tgcataatac tccatccctc 1020
ttggagagtc ataatgtaca taaacttggc aaagtctctg agaagtcctg cataaatgca 1080

gttgggtaac tctttaacct agtatTTTTgt aaaccattta aaaatcacag aacaccctcg 1140
cttgTTTTtt tctTTTTaaa tactgaagag cggactttga gaaatgctca tcatggtagt 1200
ctctaaggaa atcaggattc ctgctccatt accttgaggg tgacttttga aattgagatg 1260
TTTTgccaac aagctgcccc ctgagaaagg tggaaaatgt ctcatgttgc cttacctggc 1320
ctcttgaggg ccttgttcat cttcatcatt aatcttaagg ggtgccaggc ctgcaagcta 1380
gaatccatga gccagccctg atagttagat gcccacctta tagaggccct tcttcctgcc 1440
atcctccctt taaaactcat ttctattccc caaggatttc ttcattgtct tctaggagct 1500
taggcctggg gatggggaca acagagagac cttgagaaac ttaacatttc tgttgagcaa 1560
atgaccatct ccgcacaagc cagagaaagg aaaaggaaca gccaggcact gagccttggc 1620
caggagaggg ctgtgcttcc ttcatTTTaa ttgagccttg tgaacatctt ctgaggtaga 1680
tgttactctt cccttgagaa ggcagaagcc caaggccgag agaagttaag tcaattgtcc 1740
aaggccacat gcttaagttg tggcagaatc aggattcagc gttgctcaga tgaggtgtaa 1800
gaaggcgtgg cacatacagg tagacagggc cagacctggg ggaagaagga aggtgcacac 1860
caggctggag gaatccggga ctgtggggag agccgtggct gggaggcaac ataacatcca 1920
agttcaagtc ctgggtctgt gccattagcc TTTTTggtt tctcaagtga ggacactgga 1980
aacgatgctc ttttagctgt gaagttaatg aatccacttc tagttagggg gtgagacttg 2040
agcaagtctg ggaaagagat tagaaggcag aggcaagcag gaacaaaaac cagaaagtga 2100
agaaaagctt gtgtgcactc agaaaaatat tcatccagcg ctatctggca gacaccatgc 2160
tgggacctgt gcgcatcaca gggaacaaaa cagagccaag ccctgatctt catgaaggtt 2220
acacacttga agggagacac aaaaaactga aaatattaga aggtgatgag tgtcaaggaa 2280
aaaaaaatgc aaaggaaaag gaaccaggag tggggttgta tcctagatag gatggtcagg 2340
gaaggcctcc agtgaagatg atatttgagc agaaacttga agatgaccga gaagtggatg 2400
gggtagattc tggagtatcc tgagcagagg agcagcctgc gtgtaggtgc tgaggtgcgg 2460
agacgctgtg gttgccatct tcagggaggg acaaggaggc taccagcaag tggaaggtga 2520
gggaggagga gagtgaagag atgaggctag taatgttgac ctctttcatt atgcaaaaac 2580
ttggggagaa aagttcagtg gtataggcat tctatttggt ggatacaaat attagaaatt 2640
ttaaaataaa aagttttgtg acttagtcca aaattctaga ggacacgggc ctcggtcctt 2700
ggtagactc tgtgtccaag aaacaaatag catcccaaga attgcctctc cctctccctg 2760
gggacctagg taccatgtct ctcttctgct ctctcaagga tatccaaggc tctgcgcatg 2820

actgaagcat gcacagacaa tggttggttaa catttgtcac atttttacgt tgctttacat 2880
gacttttgtc aacattgatg tggaaaccag actgtctagc atcacatgag ttggttgtaa 2940
aagccatggg tttcttgtaa tttagaatgg cttttcctag cactggactc ctctgacttt 3000
accactaatg gtgtgctctt gatccaatca cttaaatacac tctgagtgtt gctttatttg 3060
tctattaggt ggggtgggtgt agactagatg attagtaaag ttcctttatt aaacagatct 3120
gaaaaccccc tgttctaccc tttctagcaa acaacattcc tttcacccag tgtctctctt 3180
ctcagaggtc aaactggtaa ttatccatcc cttttgcctg tgtgtacgac atgcataatt 3240
cataggtagc cttgcaaaat ggaaacgggt gtccattccc tgggtcccccac atgactagtg 3300
ctcatgcacc agaaaggtaa ccaaggacaa attctgtttt tcttccacct ccagcccctc 3360
tcatttctac cagcccccaa gacgtctata taataatcaa ttgcaagact atttatcacc 3420
catttataca atgttagatc ctgtagtcc atagcctcat gtgacagcta aggacactga 3480
ggctcagaga gatggctgac tttcccaaag ccacagagac atgccatggg gccggaacga 3540
aactgcagtt tctgaacacg agctgagatt ccttcccaa cttcttggtg cctctatttt 3600
gccaagtact aaccgtgccc tgcaaattat aagatgtcta aaaatacgtt ttaaggatga 3660
tgatggagaa ttctgaaaag aagctttttt gttttgtttt taaatacgcc ctcatagatc 3720
caatgcagtt gaaacggcga tcaaagccaa tttccctaga aacaccagat cgaaaacacg 3780
tggtgaggct ctgatctgta gtgcttcac ctaaacaata cattttacaa accctgaaaa 3840
ataaagaaaa aggaaagact c 3861

<210> 1356

<211> 4172

<212> DNA

<213> Homo sapiens

<400> 1356

aagagatgat gggcctgaag ctaaccggtg cagactaggg gcgagtttgg agcaagtaac 60
tgtcagttag gttgcagttg gtctgggctg tttggctgtg agcgaaatag ctgccccca 120
cttctcactt gcacaccacg ggatactcct cctgaggctc cggatgattc agatggactg 180

tgaaaaacaa caagatggat gatcatatgg agattgcttc taacataaat ctgcataaaa 240
atTTTTctga aacatggctg gaatatTTaa ggagTTTTtt ttcagtactg aggacctccc 300
tgaagtcatt ctaacattgt ctttgatcag ctccattgga gcattTTTTga accggcactt 360
ggaagacttt ccaattcctg tccctgtgat attatTTTTa cttggatgca gttttgaagt 420
attaagcttt acatcttcac aggtccaaag atacgcaaac gccatacaat ggataagtcc 480
agacttatTT tttcgtatat ttacaccagt agTTTTcttt actactgcat ttgacatgga 540
tacgtacatg cttcaaaagt tattttggca gatactTTta atttcaattc ccggctTTTT 600
ggTTaattat atcttagttc tttggcatct ggcatctgta aatcaattac ttttgaagcc 660
tacccaatgg ttattatTTt cagctatcct tgtgagttca gatcccatgc taaccgcagc 720
tgctgtaaga gaccttgggc tttctagaag cctcatcagt ttaattaatg gagaaagtct 780
gatgacctct gttatatcat taattacatt tactagtatt atggattttg accaaagact 840
acaaagtaaa agaaaccata ccttagctga agagatcgtg ggtggaattt gttcatatat 900
tatagcaagt ttcttgtttg gaattctaag ttcaaaactg attcaatttt ggatgtcaac 960
tgTTTTtggT gatgatgtca atcatataag tctcatcttt tcaattctgt atctcatctt 1020
ttatatttgt gagttagttg gaatgtcagg aatatttact ctggccattg tgggacttct 1080
tttaaattct acaagtttta aagcagcagt tgaagaaaca cttcttcttg aattctggac 1140
ttttctatca cgtattgctt ttctcatggt gtttactttc tttggacttc taattcctgc 1200
acatacatat ttgtatatag aatttgttga tatatactat tcattaaata tctacttaac 1260
attgattgTT ttaagatttc tgacccttct tttaatgagc cctgttttgt ctcgagttgg 1320
tcatgagttc agttggcgct gggTattcat aatggTctgt agtgaaatga aagggatgcc 1380
taatataaac atggcccttc tgcttgcccta ctctgatctt tattttggat ctgacaaaga 1440
aaaatctcaa atattatttc atggagtgtt agtatgccta ataacccttg ttgtcaatag 1500
atttatTTtg ccagtggcag ttgctatact aggtcttcgt gatgccacat caacaaaata 1560
taaatcggTT tgttgccat ttcaacactt tcaagagcta accaagtctg cagcctctgc 1620
ccttaaattt gacaaagatc ttgctaatgc tgattggaac atgattgaga aagcaattac 1680
acttgaaaac ccatacatgt tgaacgaaga agaaacaaca gaacatcaga aggtgaaatg 1740
tccacactgt aacaaggaaa tagatgagat ctttaacact gaagcaatgg agctggccaa 1800
caggcgtctc ttgtcagcac aaatagcaag ctaccagaga caatacagga atgagattct 1860
gtcccagagt gctgtccagg tgTTggttgg tgcagcagaa agTTTTggtg agaagaaggg 1920

aaaatgtatg agtcttgata caataaagaa ttattctgaa agccaaaaaa cagttacctt 1980
tgctagaaaa ctactactta attgggtgta taataccaga aaggaaaaag agggcccatc 2040
aaaatacttc ttttttcgta tatgccatac aatagtattt actgaggaat ttgaacatgt 2100
tggataacctt gtgatattaa tgaatatatt tccctttata atctcttgga tatcccagtt 2160
aatgtaatc taccacagcg aattaaaaca cactaactac tgttttctta cactttatat 2220
tctagaggca ctacttaaga tagcagcaat gaggaaggac tttttttcac atgcctggaa 2280
catattcgag ttagcaatta cattaattgg catcttacat gtaatactta ttgaaataga 2340
caccattaag tatattttta atgagattga agtaatagtc tttataaaag ttgttcaatt 2400
ttttcgtata ctacgcattt tcaagctcat agcaccaaag ttgctgaaaa taatagataa 2460
aagaatgagt catcagaaga ctttttggtta tggaatacta aaaggctatg tccaaggcga 2520
agcagacata atgaccataa ttgatcagat tacaatttct aaacagatta aacagatgtt 2580
attaaagcaa gtgataagga atatggacca tgctacaaaa gagctaggct acttagagta 2640
tgatcaccca gaaattgctg tcaactgtgaa aacaaaggaa gaaattaatg ttatgctcaa 2700
tatggctaca gaaattctta aggctttcag cttaaaagga attattagta aaactgaagg 2760
tgctggaatt aataagttaa tcatggccaa aaagaaagag gtgcttgatt ctcaatctat 2820
tatcaggcct ctactgttg aagaagttct atatcatatt ccgtggctag ataaaaacaa 2880
agattatata aacttcattc aggaaaaagc caaagttgta acatttgatt gtggaaatga 2940
tatatttgaa gaaggatg agcccaaagg aatctatatac attatttcag gcatggtaaa 3000
gcttgaaaaa tcaaagccag gtttagggat tgatcaaatg gtggagtcaa aggagaaaga 3060
ttttccgata attgacacag actatatgct cagtggagaa ataataggag agataaactg 3120
cttaactaat gaacctatga aatattctgc cacctgcaaa actgtagtgg agacatgttt 3180
tattcccaaa actcacttgt atgatgcttt tgagcaatgc tctcctctca ttaaacaaaa 3240
aatgtggcta aaacttgga tgcctattac agccagaaaa atcagagAAC acttatctta 3300
tgaggattgg aactacaata tgcaactaaa gctctctaata atttatgtag tagatatacc 3360
aatgagtacc aaaactgata tttatgatga aaatctaatac tatgttatcc tcatacatgg 3420
agctgtagaa gattgtctgt tacgaaaaac ttatagagca cttttcttaa ttcctataac 3480
atgccatcag atacaaagta ttgaagattt cacaaaagta gtgattattc aaactccgat 3540
taacatgaaa acattcagaa ggaatattag aaagtttggt cctaaacata aaagttatct 3600
tacaccagga ttaatagggt cagttggaac attggaagaa ggcattcaag aagaaagaaa 3660

tgttaaggag gatggagcac acagtgccgc cactgccagg agtccccagc cttgctccct 3720
 gctggggaca aagttaact gtaaggagtc ccctagaata aacctaagga aagtcaggaa 3780
 agagtaagac tgttaagaag accgaagcat gtattaatgc tgtggctatg agaggcctcc 3840
 tgctgcagaa acacacttcc ctacatcaag aaggagtaac ttcaggttgg atcctgtgtg 3900
 gatgatcttg gtgctaagca gaaaagaaat ttggaccttg aaaccagcag ttcaacatat 3960
 atactttttg caaaatttcc ttgatttaaa atatttgtta ttttaaataat aaaaaacatt 4020
 ttagaaaatc ttagagtaaa ttttagtctt aaagccagaa aataagtta tagccatcta 4080
 gatattttgc atattgctct tacagcaata atggtttggg tcactttatg aaaaataaaa 4140
 tgtattaaaa tatagtttaa atgctgttct tg 4172

<210> 1357

<211> 3329

<212> DNA

<213> Homo sapiens

<400> 1357

aatctcaaca cttggggagg ctgaggaggg aggagtgcct gagcccagga gtttgggccc 60
 agcctgctgt acatagcgac acccctgtct ctacaacaac agcagcaaca aaaaattatc 120
 cgggcgtgtt ggcgtgcatc tatggtccta gctactctgg aggatcacct gagcccagga 180
 attagagggt gcaatgagct gtgatcgtgc cactgcactc tagcctgggc gacagagtga 240
 taccctgtct caaaagaaaa gaaaatagcc atagttcctt gtccgtctta gctgcattcg 300
 tgtctcactg cggctttgcc aattttcctt tcttttctgc aggttgcata ccctgtcctg 360
 agggcgcggc acggagtgca tgcgggccgc tgccatgacg accgccatct tggagcgcc 420
 gagcaccctg tcggtcagcg ggcagcagct gcgccgcctg cccaagatcc tggaggatgg 480
 gcttcccaag atgccttgca ctgtcccaga aacggatgtg ccccagctct tccgggagcc 540
 ttacatccgc accggctacc gccccacggg gcacgagtgg cgctactact tcttcagcct 600
 ctttcagaaa cacaacgagg tggtaacgt ctggacccat ttactggcag ccctggccgt 660
 cctcttgcga ttctgggcct ttgccgaggc tgaggccttg ccatgggcgt ctaccactc 720

cctgcctctg ctccctctca tcctgtcgte aatcacttac ctcacctgca gccttctggc 780
ccacctgctg cagtccaagt cagagctctc ccactacacc ttctactttg tggactatgt 840
tggcgtgagc gtttaccat atggcagtgc tttggctcat ttcttctaca gctctgacca 900
ggcctgggtat gaccggttct ggcttttctt cttgccagca gctgccttct gtggctgggt 960
atcttgtgct ggctgtagct atgccaaata tcgttaccgg aggccttata cagtcattag 1020
gaagatctgt caagtgggtc cagcaggtct ggcttttata ctagacatca gccctgtggc 1080
acaccgtgtg gcgctctgtc acctggctgg ctgccaggag caagcagcct ggtaccacac 1140
cctccagatc ctcttcttcc tggttagcgc ttatttcttc tcctgccccg tgcctgagaa 1200
gtacttcccc gggtcctgtg acatcgtggg ccatgggcat cagatcttcc atgcatttct 1260
gtccatctgt acgtctctcc agctggaggc catectctctg gactaccagg ggcggcagga 1320
gatcttctctg cagcgccatg gaccctatac tgtccacatg gcctgcctct ctttcttctt 1380
cctggctgcc tgcagtgtg ccaccgcagc ctttctgagg cacaaagtca aggccagact 1440
gaccaagaaa gattcctgag gctggcaagt ggggcaacgt gtggaggaag cccctcataa 1500
tttggagaaa acttgataca atagaagctg acttttaagg cattggcttt taaattaata 1560
catatatcca aggatatgtt atagctgcag tgtttgaaag ccaaaggatt taagagtttt 1620
gttgttgtta ataaaaggaa tactcctttt ctttttggat catagcttaa caaggcacag 1680
gaagggaagg gatcttgact aagattcatg agacattgaa ttaaggagaa tcatttcat 1740
gcctgaaaat ttagcaaaat tccgactatg gcctccaggg gcaattccta aaagctgaat 1800
ggataataaa attggactgg aaagtaagta ggtggctggc cctcacctg ttggaatggc 1860
tatectacta tgctgttctt tggtaatgga ataaattgac ccaaggaccg aatttcattt 1920
ggatttcaaa ttgtccagag tggaaaagcc ttcaagatga catgatgaat tactcagttc 1980
atctgatttc tggtccttcc tttctcgaca actataatac taaccctttt ctcaggataa 2040
ctgtctacac ctggcagttt tctctgacgt gctgttact cacatcccta cttgcatgg 2100
taatataaag gactaggaag cagtcatact tccaggaaat gcttggattc atgtggacat 2160
tcagggaagct tattctcata taataactaat ctaaacagta ctagaaatta cagtgccaa 2220
agccaccagg aggcccagcc aataagcata gatactatat ggtatcatgg gaccatcta 2280
ttttttacca gtggactaca ggattacttg agagttatca gggctgccta acagaccagg 2340
agatctgggg gttgcaccag ggaatcgcca tatttgacca gcatgtttta aaagctcttg 2400
gtaggattag ttggttctaa ggatccctct agggacctca ttatttcaag aggaacccaa 2460

agtccagcct cctacataga tgctgcccc cgaaggaccc acaaaactaa cctagttcag 2520
 ggttctcagg caggcagttc tgcttcagct tagagcagaa cccataaaat actcaagtac 2580
 tgggataggc aagcatgtgt gtttactgtg gattgggtccc tgaaggctcc tttgggtgag 2640
 aacatgtgaa ccaggcacc cgggtttgtt ggagcattgc tgcccagaag cttctatggg 2700
 ataggtggtg cttgggattg atgtgttgtg gccatgcagc cctccctgag gattgacttc 2760
 tgcactaatc cagtgaagga ggctgtgtca aaagaagggc tcagaagccc tcttttcaga 2820
 ggcaatgatt cctgtcagta tgaggtccct tagttactaa aaaggacat gatttaactc 2880
 cagtttgatg aacctcctcc gagtttactt tattgtcttc aaatcttttg ttttcttcct 2940
 ttttgtgaga tttgtgggtt ttgtgcctta taaatggaaa tgtatgaaca caatatatgc 3000
 tcatgtagaa ttttctgttc tgggttattg ggataagaaa aaatatatat tgctcttcaa 3060
 ctagtgaatg aaagaaactt cagaaagcta gaattgctta tcaatcaaaa gactttctca 3120
 atctattttg gccacaaaca aacatattca actgaagctt tccaataatc tttatatcaa 3180
 gaaagcatgc gtcttgtcag ctacattgtt ttcttagatg gatttctcct gttaatcctc 3240
 aaatatctga acttctgtgt tacccaagtg tcttatacaa gcttctggtg tctaggacaa 3300
 atttatggca aataaaatta gcaaaactg 3329

<210> 1358

<211> 3925

<212> DNA

<213> Homo sapiens

<400> 1358

cagatggaac ttaccttgct gttggatgca atgacagctc ggttgatatt tatggagttg 60
 ctcagcgtta taaaaaagtt ggcgagtgtt tgggatccct tagtttcac actcatctgg 120
 actggctctc agacagtaga tatttgcaga caaatgatgg aaatgggaaa agactttttt 180
 atagaatgcc aggaggaaag gaagtgcaca gtacagaaga aataaaagggt gttcattggg 240
 cttcatggac atgtgtttca ggccttgaag taaatggaat ttggcccaag tattcagata 300
 tcaacgatat aaattcagta gatggaaatt atattggcca agtttttagtt acagctgatg 360

actatggaat tataaaatta ttccgatatc catgtttaag aaaaggggcc aagtttagaa 420
aatatatgg ccattcagct cacgtaacta atgtcagatg gtcacatgat tatcagtggg 480
ttatttctat tgggtggagca gatcactctg tctttcagtg gaaatttatt cctgaaagaa 540
aactgaaaga tgctgttcac atagcacccc aaggttatat tcacttatat ttgcacagac 600
atttaaattt gatgtagcgg tcattgggga gccagtgaag ggatttaaag gagctattga 660
gtttgcagtg agtggagagg aagataatct gtagtacagt ttactgacat ctgtgtcact 720
tgaatagaaa gtctggctga ctctcatagt gatgaatcag attcagatct gtctgatgtt 780
ccagaactgg attctgaaat tgaacaagag acacagctca cctaccgtcg acaggtttac 840
aaagaagatc tacctcagct taaagaacag tgcaaaagaga aacaaaaaag tgctacttct 900
aaaagaagag agcgggctcc aggaaatagt attcgattac actttgttca cggttacaga 960
ggttatgact gtcgaagtaa tctgttttat actcaaattg gtgaaattgt gtacatgtg 1020
gcagcagtgg gtgtcattta taatcgacag caaaacacac agcgttttta tctgggtcat 1080
gatgatgata ttctctgcct aactattcat cctttgaaag actacgtggc aacaggccag 1140
gttggttagag atccctcaat tcatatatgg gatacagaga ccattaaacc attgtccata 1200
ttaaagggcc accaccagta tgggtgttagt gccgttgatt tctcagcgga tgggaaacgt 1260
ttggcatcag ttggcataga tgatagccat actgttgtgc tctgggactg gaagaaagga 1320
gagaaaacttt caatagcaag aggaagtaaa gataagattt ttgttgtaaa gatgaacccc 1380
tatgtgcctg ataaactaat tacagctgga attaaacaca tgaaattttg gcgtaaagca 1440
ggagatgtgt gtatctggag agacatcttt cttgtaaaaa cagtgaagc gcatgatggg 1500
ccagtgttca gtatgcatgc attggaaaaa gggtttgtaa ctggaggaaa agatggtata 1560
gtagctcttt gggatgactc ttttgaaaga tgtctcaaga cctatgctat aaaaagagct 1620
gcattggccc caggatctaa aggtcttctc ttggaagata atccatctat acgtgccata 1680
tcattaggac atggtcatat tttagttggc acaaagaatg gtgaaatact agaagtggat 1740
aaaagtggcc caataacact tctggttcag ggacacatgg aaggagaggt gtgggggttta 1800
gctacacacc cttatctgcc catctgtgct actgtaagcg atgataaaac cttagaata 1860
tgggatctct cacctagtca ttgtatgttg gctgtccgga agctgaaaaa ggggtgggagg 1920
tgttgctgtt tttctcctga tggtaaagct ttagccgtag gtctcaacga tggaagcttc 1980
ttaatggcaa atgcggatac tctagaggat cttgtgtctt ttcacacag aaaagatatg 2040
atttcagata ttcgattttc acctggttct gggaaatatc ttgctgtagc atcccatgac 2100

agctttatag atatatacaa tgtaatgagt agtaaacgag taggaatatg caaaggagct 2160
accagttaca taaccatat tgattgggat attagaggaa agcttttaca ggtcaacact 2220
ggtgctaagg aacaattatt ctttgaagct cccagaggga aaaaacaaac catccccagc 2280
gtggaggtag aaaaaattgc ttgggcatca tggacaagtg tacttggttt atgctgtgaa 2340
ggaatttggc cagtaattgg agaagttaca gatgtaactg cttcttgcct caccagtgac 2400
aaaatggttc tagctaccgg ggacgatttg ggatttgtga agttatttag atatcctact 2460
aaagggaaat ttggaaagt taagaggtat gtggcccata gtacacatgt cacaaatggt 2520
cgctggactt atgatgacag catgttgggt accctaggcg gtacagatat gtctttaatg 2580
gtgtggacaa atgagatgga aggctatcga gaaaaaaggc cttgtgatag tgaagaatcc 2640
gacattgatt ctgaagaaga tgggggctat gacagtgatg ttacaaggga gaatgaaatc 2700
agttacacca tcagagcctt atcaacaaat attcgcccaa tgtaggaat caagcctcat 2760
ttacaacaaa aagaaccctc aattgatgaa aggcctccag tgagcagggc cccaccacag 2820
ccagagaaac tccagacaaa caatgtaggc aagaaaaaga gacctataga ggaccttgtg 2880
ttggagctca tttttggtta tcgaggcaga gactgtagga ataattgtca ctatttaa 2940
gatggtgatg atataattta tcacactgca tctgttggaa ttctgcacaa tgttgctaca 3000
ggttctcaga gtttttatca ggaacataat gatgatattc tgtgcctcac agtaaaccag 3060
caccacaaat ttatcaacat agtggcaact ggccaagtag gtgattcagc agacatgtca 3120
gctacagctc cttctattca catctgggat gcaatgaaca agcagacttt atctatccta 3180
agatgctacc attcaaaggg agtatgttca gtcagcttca gtgctactgg caaactattg 3240
ctgtctgtgg gactagaccc agaacatact attaccattt ggagatggca ggaaggtgcc 3300
aaaattgcc a gcagagctgg tcacaatcaa cgtatTTTTG tggcagaatt ccgaccagat 3360
tcagataccc agtttgtctc agtgggagta aaacatgtga agttctggac cctggcagga 3420
agagctcttc ttagcaaaaa agggctactg agcacactgg aagatgcccg gatgcagacc 3480
atgctcgcta ttgcatttgg tgcaaataac ttgacgttta caggtaccat cagtgggtgat 3540
gtctgtgtgt ggaaagatca catatttgtt agaatcgtgg cgagagctca caacgggcct 3600
gtgtttgcc a tgtacaccac cctgcgagat ggacttatcg tgactggggg aaaggaaagg 3660
ccgtcaaaag aaggaggagc ggttaaactg tgggatcagg aactgaggcg gtgccgtgcc 3720
ttcaggcttg agacaggaca agccacagat tgtgttcgtt ctgtgtgcag aggcaaagta 3780
tttacaagag aggattttga aagtttccat cacaaagaaa tgataaatgt ctgaggtgat 3840

ggttatgcgt attaccctat gccctataga tatgtataat tatgtgtcaa tttcaaaata 3900
aaaattcaaa actacaactc ctatg 3925

<210> 1359

<211> 3920

<212> DNA

<213> Homo sapiens

<400> 1359

catcttttcc taaccttgtc aggccctgga gctccctttg tccatgccag tgaccatcgg 60
tcctcagaat gtgcagtgga agttgctgtg gacagtgtc cctgggtctct gaggccctct 120
tcgtcctggc ctggccaagg acttcccaga aaactgtgct tagctgtggc gggaggcacg 180
gccggtcacg cagccttcct cccgccctgg agtgggcagg cctgcttgtg ttgtgcagcg 240
gcagaaccct tcctgacttc caggtttttc ctgggggtgcg gcatcccatc gcagcatttt 300
ctctgggttac cctcacgagt ttctcctgc gtttggttct tgatctccag ggccatctcc 360
cacgtcttcc ttggaaaggg gcattgtcat cctttttgta ttttgatgat ttgaaagat 420
ttcccatagt aactgttagg aagttggcct cagaagcaaa aattcttctt ttgtcttggc 480
ccctgtgaac aagtgttctg ctctcagatg aagcaggag gctgcactgg agcttggtgg 540
ccagcaggag ggaatcacca ggggtggtgaa gcctgcgaga tttctccccg ggtgtctctg 600
atggggccac atggtggatt tcataatcca ccgattcggt tttttaagcc tttattgtta 660
acatcaactg tgtgccatgc tcagagacct gaagtgaana ggtgaggaag gcgtgctcac 720
attccagcac tcaccacccg gcaccgggcc agctgactca gcacgtgccg ttaggttgc 780
tgtacacagc cggtagatt ctcccctctg gtgggcagtg cgtgtctgac aaaggcagtc 840
gggcggagaa cagttcctcc gctgtggtcc tttgccactg taccaggccc ccaagagctg 900
gggggagccc caggagacct cagcctgttg agtgggggca gctggtttgt cctccgaggt 960
ggaagaggtg atttctgagg aggtcatgct ccgcttggct cgttcacagc atttcagaga 1020
gtccgaaaga ggagaaagac cttggcaagg ggtgtgtcag ggggtggccc agggacgctg 1080
gtggcctcat gtggactgac tttcatgaac agaaactcag aaacagttgc ttctggattt 1140

tggtttctca gataaacatt cttttttag tagttttgtt catccctcat tttgctgtct 1200
gactttgcct ttcttttccc ttcactatta ctgatgacca aggaaactgg aagttaattc 1260
cagaggcagt ggggttgctc ctgttgcttg tgcagactgg agttcctctg cctctgtcag 1320
catctcctct gtccttcccc agccttggca ggagaccagt aatgacctct gtccccgtgc 1380
accccagtga tggccgccgt ccccgatgcac cccagtgatg gccgccgtcc ccgtgcaccc 1440
cagtgatggc cgccgtcccc gtgcacccca gtgatggccg ccgtccccgt gcaccccagt 1500
gatggccgcc gtccccgtgc accccagtga tggccgccgt ccccgatgcac cccagtgagg 1560
gccgccgtcc ccgtgcaccc cagtgagggc cgccgtcccc gtgcacccca gtgatggccg 1620
ccgtccccgt gcacaccagt gatggccgcc gtccccgtgc acaccagtga gggccgccgt 1680
ccccgtgcac accagtgagg gccgccgtcc ccgtgcacac cagtgagggc cgccgtcccc 1740
gtgcacccca gtgatggccg ccgtccccgt gcaccccagt gatggccgcc gtccccgtgc 1800
accccagtga tggccgccgt ccccgatgcac cccagtgatg gccgccgtcc ccgtgcaccc 1860
cagtgatggc cgccgtcccc gtgcacccca gtgatggccg ccgtccccgt gcaccccagt 1920
gatggccgcc gtccccgtgc accccagtga tggccgccgt ccccgatgcac cccagtgatg 1980
gccgccgtcc ccgtgcaccc cagtgatggc cgccgtcccc gtgcacacca gtgatggccg 2040
ccgtgcccggt gcaccccagt gatggccgcc gtccccgtgc acaccagtga tggcctctgt 2100
cccccatgca ctcccagaca ggcaatgtcc ctgtgggcct gtcccaggct ctgttctcag 2160
caggctgggc tcagccctgg tgcagggagt gaggaggtgg gagtagtaga gaccagaaaa 2220
agtggcagct gttgacaact ctgccatctc tttctgaatg taatgggagg tcctgtcttt 2280
tcagcttgca aggaaggagg gtccgaggca actccgctgt tgcacattta gggacccttg 2340
aacttaaatg acagaatgcc ctgaccactc tggaaggcac tgtgttcatg tttgtgtgct 2400
tgactcttga tccgtaaaat ggctgtttgt gcaggtcatt aactgtgaga ttcagagagt 2460
aggtgcacac gtcctgcag agattccagc aggactgaaa accagtagaa atatatcagc 2520
acctggatct tgcctcctga gtcagtaagg atatgccaca gtcacgaagg cagtgggatt 2580
tcgagggagg gaagggaagg cggcaggcgg ggcatgccct ccgggggtgcc cgaacacacc 2640
tgctgcatcc acatgtcttc agagccctct ccctgtggga ggcctttttc aggacagcct 2700
tggtgaactg gaaacggaat ccagccctt ggtggccctg cagtgacttg gacctttccg 2760
aggtcacct gccactgcgt gcccttcagt cctcctggc aggtgggggc acatccccca 2820
gccactccca tttcctgaca ttgtcacttt gtataactgg aagccgtctg tgaattttta 2880

gttttcaaag cattatctgg tgatgggcaa cccagggcag cgaatcattc agaattttct 2940
 tatctaggct aataaacata ataaaatcaa taaggacttt gaaagtaact ccaactgggtt 3000
 caggaaactg agtgtggccg ccctgtgggg tggtgtttgg tgagtgcctc ccggaggtga 3060
 gtagttaatt cacaggagtg actaatggca gcgtcccact cactcctcct tccgggggtca 3120
 tgggtctcaag gggtcactcc atgcactggg gatgtcagct cattacagaa tgatatattc 3180
 gggaagtgtc tcagttctga gtgcctttga gggaatttgc acttccgttc ccacacagcc 3240
 ttgcattgtg tgtgttagag gctgtgggcc ttgggcagga ggggtgagtg ttggcacata 3300
 cctcccgtct ctcccagcct tctctgactc tgactttccc tcttgaaggc taccggctct 3360
 ctgaccagtt ccacgacatc ctcatcgaag agtttgacag gcagggacgg gggcagatcg 3420
 ccttcgacga cttcatccag ggctgcatcg tcctgcagag gttgacggat atattcagac 3480
 gttacgacac ggatcaggac ggctggattc aggtgtcgta cgaacagtac ctgtccatgg 3540
 tcttcagtat cgtatgacct tggcctctcg tgaagagcag cacaacatgg aaagagccaa 3600
 aatgtcacag ttcctatctg tgagggaatg gagcacaggt gcagttagat gctgttcttc 3660
 ctttagattt tgtcacgtgg ggaccagct gtacatatgt ggataagctg attaattggtt 3720
 ttgcaactgt aatagtagct gtatcgttct aatgcagaca ttggatttgg tgactgtctc 3780
 attgtgccat gaggtaaatg taatgtttca ggcatctctc ttgcaaaaaa atctatcatg 3840
 tgcttttcta gatgtctctg gttctatagt gcaaatgctt ttattagcca ataggaattt 3900
 taaaataaca tggaacttac 3920

<210> 1360

<211> 3809

<212> DNA

<213> Homo sapiens

<400> 1360

gattgtgcag cgactccccg tggcggttga ggggcagtgg tggcggcgga agcccaagtc 60
 gatgctgatg ttgatgctgg tggcggctgt gaccatgtgg ctccgaccgc tggtcacagc 120
 tcagctctgt cggaccgcct gtattttcat cctacaacaa cacgcttgat taaacatcct 180

tgcgagaaaa atatagcact atatctaggg aaacaagttt ttttcacaat ggataacttt 240
gagactagtc tccttccatt taccatccct acatcaatgc aggtcggcgt accagaagtg 300
acatcagcac attttgctgg ttcgttattg ctgttagtag tggatcaaaa agtctatatt 360
tatgattatg aaaataattc ttggagcatg tctttaggta taaaacaccc tgttacacat 420
gtctctgggtg ataattgttg ttatactgga agtttgtttt gtgtgcatgt cagtaatttg 480
gtttttgcat atttccgtgg agatcagata tcccagactt atatatatta ttcaaatact 540
gggggattca gtttttgga gtatcactat gacagacagg ttgcatgct tgtagtgaat 600
caagggaagg gcatgttcaa gtactcagat caccctca accggagttt cgggctgtct 660
tttgactata atgggactct agacatcctc atcgccccg gccagagagg catcctgctc 720
ctatggtttg agaacagcct gttgttttcc cataatgcag tttcactctg tcatcgagac 780
tggagtgcaa tgggtgaatc gtggctcact gcagcctccc cacctctcag gctcaagtga 840
tcctcctgct tcagcctccc agtaactggg actacaggtc agctcgtcga caccgtccgg 900
gtgaaaaaag gagaccagac cttgttttct tccatttttg aagccaagat caccatccac 960
aacattgctg tcaactgaaa tgaactggca gttataactc gggaggataa tttgtattat 1020
ggcaatctgg gcatcgtgcc aagtccata atcaaatttg cagaccaata catctggtca 1080
gaagacgtgg ccctgatgtt caggagccca gggactctgg aaatactgac cccactgcgt 1140
gacacagcct ttccagcttt tgatttccag aagtgcctcg tgaatatcca ggcgtttctc 1200
atggaccctg aactccacgt tggaaagtgc aagatagagt ttctgacagg agaatttata 1260
tacaggatgt ataccattga catgcacagc cagctggaat tgactgcttc gttgataccc 1320
cagccaggca catcctgat tcctctggtg atggtgagca acccccactc cctggggttc 1380
caggccacct tctacgagaa cggttacaca tcagatggga acaccaagta caaactggat 1440
attttcctaa aacagcagca gcactggggc aggaccgact ccaacttcac ttccagttta 1500
aagaaagcca ccatgtctac cttaactgtg gacatagcaa acaaggaaat ttcatgtgtg 1560
gatatcaagc cactgtcgac actgatttca gttggctgcg acctggataa aaagatcgctc 1620
atccagaaca aagtttccgc ctgttccatg ggcatcctgg accccttgac cctgcaagac 1680
aattacagct tcatcatcga gaaggaattc tacgaccccg gcttccaggg gcagcagtc 1740
tccgaggacc tgcacgtgtt ttactcctac cagcagctgg gctgtcctct cctcgtctac 1800
tatgacaccc tatggaagcc cgtgggtggag ctgctggagt gcagtggcat gaacacagtt 1860
cattgcagcc ttaacctccc aggtcaagc ggctcctcctg cctcagcctc ccaagtagct 1920

gggactgcag ttgcatacca caatgcccgg ttaatttttt tttttttttt tttttttttt 1980
ttgagacaga gtctcgctct gtcgcccagg ctggagtgcg gcggtgtgat cttggctcac 2040
cgcaagctcc gcctcccggg ttcacgccat tctcctgcct cagcctcccg agtagctggg 2100
attacaggcg cccgccactg cgcccggcta atttttttta ttttttagtag agatagggtt 2160
tcaccgtgtt agccaagatg gtctcgatct cctgacctcg tgatcctcac gcctgtaatc 2220
ccagcacttt gggaggctga ggcagggtga tcatgaggtc aggagttaga gaccagcctg 2280
gctaacatgg caaaaccccg tctctactaa aaatacaaaa atcagtcggg catggtggcg 2340
gacacctgta ctcccagcta ctcaggagaa tcacttgagc ctgggaggca gaggttgtag 2400
tgagcacaga tcacgactgc aaaagactcg aaggctcttt aggggatcta gcaggaaccc 2460
caattccttt taggggtgta caaggccttt gaggatttaa ggaactgacc gaaggacggg 2520
aaatgcaggc accaaggtgt tcagggggct ttgctgatga tgagaaatgc ctgggaccat 2580
cccaatgctt gctactgagg gatggatgga attcccgggc tgtcttactc agtgtgcac 2640
tgttttattt ttatttcttt taggcagggt ctcactctgt ctcccaggct ggagtgcagt 2700
ggtgcaatct cagctcactg aagactcaag cctcaagtga tcctcccact tcagcctccc 2760
aattagctgg gactacgggt gtgtgccacc atgcccggct aatttttgta tctttttttt 2820
tttttttttg tagaggcagg gcttcagtat gttacacagg ctggctttga actcctgggc 2880
tgaagcgatc ctcccatgga ttataggtat aagtcaccac gctcagctc agtgtgtatt 2940
tctatcatac gagtgatgtc ctgtccctac aaagagattg catcagtcca cgtgtatctt 3000
cccgggacac aatgttttgt atcaggaatg cagtgcacgc agcaaagcca ccagcagatg 3060
gtgtcctggc tctttttttg catttgcttt tttttttttt ttttttgaga cggagcctca 3120
ctgtgtcccc caggctggag tgcagtggcg caatctcagc tcaactgcaac ctccacctcc 3180
cgagttcaag caattctccc gcctcagcct cctgagtagc tggacttaca agcacctgcc 3240
accacgcccg gtttaatttt gtatttttag tagagacggg gtttcaccgt gttgccagg 3300
ctggtcttga actcctgacc ttgtgatccg cccgcctcgg cctcccaaag tgctgggatt 3360
ataggcgtga gccactgcgc ccggctggct ctgttggtat ttctatatgc attcttcata 3420
tgggctgtct cattgcaa at tgcagtagtg catttaagag atggcccat tactattttt 3480
tttccatcag ctgtggtgag tggctgcttt tgtagaacat gaagttttcc tggacaggca 3540
cagtggctca cgcctgtaat ccagcactt tgggaggcca aggtgggcag attacttgag 3600
gacaggagtt caagaccagc ttaacatggc aaaaccccg ctctactaaa aatacaaaaa 3660

ttacctgggc atagtgggtgc acgcctgtaa tcccagttac tggggagctt gaggcaagag 3720
aatcgcttga acccaggagg tgaaggttgc agtgagccga aactgcacca ctgcactccg 3780
gcctgggcaa cagagcgagg ctgtttctc 3809

<210> 1361

<211> 2654

<212> DNA

<213> Homo sapiens

<400> 1361

aacataattg gctttgcagt gcgcatccgg gtctgcgtca ggaaggccca agtttccatc 60
gcgcgaggct gagccacaca gcgtgcgagg ttcccccagc agcaccgact ccgatctccg 120
ggaggcgccc ccagagctcc gaggactcgc cccgcgtcgc gcggtcctgc cgacacctgt 180
tacctcaaag aggacttcgc cgccccgagc cccccgcacc cacgtcccct gccaggccca 240
ggagcgccgt ccgcagcgcc gtcgaggtga tgggcagccg gccctgcagc cccagcgcct 300
gccttgcgcc ctggtgggga cagcagccag gaggaccagg ccctgccaag cgcagccgat 360
tggaggagcc cgcgggcccc gaatcccagc cggcgcccag cccggaagac ccggcgggga 420
ccccggccgt ggacgcgctc acctccatgg tggtcctgga cgcgggctgt gccctgcgtg 480
tgcccctgga ggacgtcgac ctggtgctgg agctcgcgcc aatgtcggtc ctgcgagtgt 540
ctcttggtgg acacaccctc atcgtgatcc ccgaggtcct cctgagctcc gtcgacgaat 600
gctcaggagc gcagggcgac tggctctgccg gcctggaagt ggacgttttc ctgggcgctc 660
acggggaaga cgtcgtcgtc gagcaggaag tctgcgcatc tgtcccagag atcgtgccg 720
aggaagaggc ctacgaggag gacgcggact ctgagttccc ggagctctgg atggactccg 780
cagccggctc agccgctggg ctctaccctt ccgctagaag tatgttcagc ccctaccggg 840
agggcccat ccgagggccc tgtgtctctgg ccccaaccc cagttcagag agacgtcttc 900
cacgccccat cttcgacctg gaattccatc ttctggagcc tgtccccage tcacctctcc 960
aacctctacc tccctctccg agtccaggtc cccacgcgcg cccggagctc ccagagcgcc 1020
ctccgtgcaa ggtccgaaga cgcctgttcc aggaatgagt tgcctccac aatcccttgc 1080

caccctgctg ggctccagga gaccgtctcc tgatagccgt tgtgtgtatg ttgcgcaacc 1140
tacaaggatc tcggagagtg gataacggat agatgctttt ttgatacagg ctgcgttgca 1200
gaattctgga tcagtggctg acttagaaag tctggaaaaa aaagatcctc ctcctcagca 1260
taaaaaatacg ctagttagaa tacagtctac tttcagactg tgagattgct gcttcggggc 1320
tgttttgttt ggaagtcacc cctaggcagc tccattcccc ctggttttgc tttgaacctc 1380
agttccagca catttctcta aaaatccgcc ctttccccag cacgttacca tggcacacct 1440
tttctcccaa gttaatttac tacatttatt ttgtttaatg ggttttggcc ctagtctctg 1500
ggctagttta tgacgacctt ctcaacatgg aatttttccc tatggtggcc tgagcccttt 1560
tgggtgatct tgcacatagt tgtacctgga caaatgtttg ttgtttgcaa aacagaccga 1620
actgggaata atgatcatgt accctccttt ttttcatgat tggtttagca aattgtttat 1680
gttattgggc tttatttccc ccctaactct tagagccagc tcttttccat tcatttcttc 1740
ttctatgttt ttaataataat tattttatcc tggaaaagct tataattcta agactctgtg 1800
tgtgtatgtg tgtgtgtgtt gtttgtttgt ttgttttttg agacaagagt ttcactcttg 1860
ttgcctaggc tggagtgcaa tggcacaatc tcagctcact gcaacctttg cctcccaggt 1920
tcaagcaatt ctccgcctc agcctcccaa agtgctggga ttacaggcac gagccatcgc 1980
accagccgg aaataatttg tttcttaggt tgatgtatca aatgcaatta ctgaatttct 2040
ttaatgggtg atgtgtagat tctcaattga ttgattgatt gattgataaa aacaatatct 2100
ccaaataatg agaatatgt cttttttgac aagcttcata catcttattt ttctttaatc 2160
ttttatattg gacattactt caagtccaga ttgaacagta tggttaatat gggcattcct 2220
gttttatgcc ttgtgttaat gcttctaaat ttaccataa agtatgatct ttacatgggt 2280
gtagataac ccttaatcta ttgaagcagt taattttcag tctttcagat catgaaaaac 2340
tgttgaattt ttgctttgtt ttgcctgtt actacaaaga tggtatcaag ttgttttaaa 2400
tgttgacatt taattatttg tgtgtataca ataatacaat acaatagcta gatggaacct 2460
ttgggccaca agagtacgta cagaaacctg gcaagagcgc taatgagacc aggctttggg 2520
cttcagggat ttaaaacaat tggatgcttt atgaggactt gagaagacac aagtggaagg 2580
agaaaggcag taactgtagg gtgcatttaa ggttttaaat gttaaaaatt aaagaaactt 2640
ttttttctgt atgc 2654

<210> 1362

<211> 3795

<212> DNA

<213> Homo sapiens

<400> 1362

```
aaggacaccc gaggatgtct aaaagaagct cagcgggaaa gctgagcgcct cagaagaacg      60
agggtaacaa tgggacaaag tgaagcaga cattctgctt atttaaattt ctaaggcat      120
tgattatgaa gagggggaaa gatagtaatt tgttatcact ctttagtgca gtaaagcagc      180
tttgcccatg gttcctggaa caagggatta tggagttgga tgaatgggag agaattggca      240
gagatttaaa aaaaagtgtg taaagatgga gcaaaaattc cagtctcggt ttggtcaatg      300
tgggcactaa taaaagtagc tcttgagcca tttcaaacag atgatgaggc agattcagat      360
gaggaagagg aggatgagtg taaaaaacta acctcagatt ctgaatgtga ggaacggaaa      420
atggaggaaa ttaaagaaaa gaaaaagaaa ctcagaggct gggcgcggtg gctcacgcct      480
gtaatcccag cattttggga ggccgaggtg ggcagatcac aaggtcagga gatcgagacc      540
atcctggctg acacggtgaa acccgtctc tactaaaaat acaaaaaatt agctgggcgt      600
ggtggcgggc aactgtagtc ccagctactc aggaggctga ggcaggagga tggcgtgaac      660
ccgggaggcg gagcttgca gtagccgaga tcgcgtact gcacttcagc ctggggaaca      720
gagtgagact ctgtctcaa aaaaaaaaaa aaaaaaaaaa agagagaaac tgaaaaaaaaa      780
gtatgtttta ctagcccgac ggctccacct actgaattaa gtgaaaggcc acctcctctc      840
tctcccccta atgggcgaga agatgaatta gctatgaaac ttactgctcc tgtagttgca      900
acattaaaac ctggagcaat tgatggtgct atacaaaatt ctattcaaaa ggctagagcc      960
gagggagacc ttgaagcatg gcaatttccc ataactataa tccagcaggg agaacagaat     1020
atagctaatt ggaccacctt tccttttaag atgctctcct cccaatttc taccagctt     1080
acccactgc aatactatct ttaagccttg gctccttggc cagggcctta gaactgataa     1140
cccagtactt taataactgg aactgggtct acgacaacat aatagatcag gacggaaacg     1200
aattcagtaa attaaagtga ggcgcataatt cctatagtgg caaatggggg caatgagaga     1260
atgtccttct gctgtgtttc caaaatccat ctacaaagga gaaagaaaga gatatacaag     1320
tagttaaagg aaaaacagtg taccctattc ctttaaaagc cagggttaagt ttaaaacata     1380
```

taattgatag ttgagggtct tctctgtgac tctataactc tccaatacta ccttgttgtc 1440
agtgtaaaca aggggtgtagc ccgaaagcac tgagaccact gaccaccact agccttccta 1500
tcaaaaaatc cctaaccag taacccgtga atggcccaaa tgcattccat cggtagcagc 1560
aactgcttcg ctaacagaag aaagtggaaa aataaccttt agaggaaacg tcattgtgag 1620
cacacctcac cagtccaggg ctatcctaag aaaaaaaagc aaaaaggtag cttactaact 1680
aaaaaatctt aaagtatggg gctattctgt tagaaaaagg tgatttaata ttaaccactg 1740
aaaattccct taaccagca ggtttcttaa tgagggattt aaatcttaat taccatacaa 1800
aggctctgagc agacctagga ggaactccct tcaggacagg aggatagatg gctcctcctg 1860
ggtgattgag gggataaaac cacagcaggt attcagtaat tgataggag actctttag 1920
aaacagagtt agaaaaatcg cctaataatt ggtctgctca aatgtgcgag ctgtttgcag 1980
tcagccaagc cttaaagtac ttacagaatt aaaaaaactc tatcttaacc ctgacacaaa 2040
aggttaccta caccctctct gaaacaaatt ttcataagaa ttgtttatgg gagtgcattc 2100
tgaaggagca gctgggttgt tatgaaatac tccggaaccc agcccagctc tagaactcgc 2160
ccctgagctc aaaggcaatg ttgggcatgc tggtaaagga ccactagaat ccagcagcgt 2220
agactccttt ctttgtggtc aagaaagggtg ggaaaacaga tgcaggacca gtacattggt 2280
cagtgtaacg agtccgataa acagaagtcc atgggtgggt atgcaccctg gaaaggaata 2340
agcattagga ccatagacga cactctagga ctaatgctta tcagaaaatg actaggggtg 2400
ctggcatccc tatgttcttt tttcagatgg gaaatgttcc ccacaaggca aaaacgcccc 2460
taagatgtat tctggagaat ttggcctagt cagagtgtat gcaacttttt acctctcaga 2520
tttgaacaa attaaaatag acctaggtaa attctcagat aacctgatg gctgtattga 2580
tgttttacaa gggttaggac aatcctttga tctgacatgg agagatataa tgttactgct 2640
agatcagacg ctaaccccaa atgagagaag taccgtcata actgcagccc gagagtgttg 2700
tgatctctgg tatctcagtc aggtcaatga taggatgaca acagaggaaa gagaacaatt 2760
ccccacaggc cagcaggcag ttcctaggct agaccctcac tgggatgcag aatcagaaca 2820
cggagattgg tgccacagac atttgctaac ttgtgtgcta gaaggactaa ggaaaactag 2880
gcagaagcct ataaattatt caatgatgtc cactataaca caaggaaaga agaaaatcct 2940
actgcctttc tggagagact aagggaggca ttgaggaaac atatctctct gtcacatgac 3000
tctattgaag gccaaactaat cttaaaggat aaatttatca ctacgtcagc tgcagatact 3060
agaaaaaact tcaaaagtcc acctaggcc tggagcaaaa cttagaaacc ctattgaact 3120

tggcaacctt ggttttttat aatagagatc aggaggagca ggtggaacag gacaaacagg 3180
 attaaaaaaaa aaaagggggc caccacttta gtcattggccc tcaggcaagc ggacttttga 3240
 ggctctggga aagggaaagg ctgggcaaat cgaatgccta atagggttg cttccagtgt 3300
 ggtctataag gacactttaa aaaagattgt ccgaatagaa ataagccgcc cccttgtcca 3360
 tgcccccttat gtcaaggga tcaactggaag tcccactgcc ccaggggacg aaggtcctct 3420
 gagtcagaag ccactaacca gacgatccag cagcaggact gagggtgccc ggggcaagcg 3480
 ccagcccatg ccctcacct cagagagccc caggtatgct tgaccattga gggccaggaa 3540
 gttaactgtc tcctggacac tggcgagcc ttctcagtct tactctctg tctcggacaa 3600
 ctgtcttcca gatctgtcac tatctaagg gtcctaggac aggcagtcac tagctacctc 3660
 tccaaccac taagttgtga ctggggaact ttactctttt cacatgcctt tctaattatg 3720
 cctgaaagcc ccactcctt gttagggaga gatatcctgg caaaagcagg ggccattata 3780
 cactagaatt aggag 3795

<210> 1363

<211> 3796

<212> DNA

<213> Homo sapiens

<400> 1363

tcccattttc cttagaatta ctttttcttt cttggacctg cctgcataca gaatagatct 60
 gtctgcattg agtgtattca gtgagctaag ctaagggaag actgcagtgg gcagggcctt 120
 actttcttgt gagtgaactc tttgcagggt ttaaggaata tgactactct gctttaaggg 180
 ggtgtgggga gcactttgtt aaagcaatgt gcattctgaa tccatttcat aggcgtcctt 240
 actccgtggc agctacacct ttaatcgtgg attataataa cttttaaatg agtgcaaaac 300
 tttcaggatc ttttcttaa gttgggaaat gagatttttt ttttctgctc ttttcaagta 360
 tcaactaaat taagctctgg tacggagtca ggagtccttt tctttacact ctttcagcat 420
 gttttccatg gtactagccg aactgtgca ggtgggtgag ggacaggctg gggcgtttcg 480
 gcagctgacc tgggctgctc ttccatttca ggtgatcgtg cagtccggcc gccacccac 540

agtgctgcag aagctctgcc agttgccctt ccagtatttc agtgaccac ggctgatcaa 600
agtactgttc ccttcactta tcgctgcttg tgacaacaac catcagaaca agatcattct 660
ggagcaagag atgagctgtg ttttactggc cactttcatt caggatttgg cacagactcc 720
aggtcaagcg gaaaaccagc cttaccaacc caaaggtatg tctctattga aattaaattt 780
catgtgtttg ttagccaaat ggacatcttt cttatccttt cctctggaac tgctacatta 840
tatgtaaaat ttatacata acctaaaaat atttgagatt cagataccaa gtatatttca 900
gtaagtaaag aaatcgattt tgtcatgaag catgaatgca tccaaatatg tatagaaatc 960
tgtgggagta aaagaaaagc acaaatatct ttgtataatt tataatcatc tcatgcaaga 1020
tatattaaat ggtaaataat tactaaagag ccgctttgta atacaggagc cagatcatta 1080
atactggccc acattttctca cataaatgct gaaatcacat aggttttggtt cttatccat 1140
gttcagaata aagttatcag taatagtagc ccacagtttc cccccaagtt caagtagttg 1200
aacttttggt ttgaaaataa ttgttttaca tggagaaaaa gtcactaat tggcaaagtc 1260
cagggcaaaa gatttacaag ttgttttttt ttcctatagc attcctgctg ggggtgtttgc 1320
tgtgatcaga gttagagatg tagaattttt accacatttt tactttttta aatattctgc 1380
taccagact gtaattgaga agtacaagtt gctctttggg tgttatgaca gcatctctga 1440
tgaatgagaa cctaaccag atcttcttca attcttccat tagtttgata gtctttaag 1500
tggccattta gaggtacact cccagcagga ccctttaggg caccaccaa gaaaccctta 1560
cttggtgggg gtgggggtgt taccttggac tctttcacac acacacacac acacacacac 1620
acacaaagtc ctctacagt gacaggtgtt gaaaagtgc cagaagaaaa tataactaaa 1680
gctattacaa tatcatgaaa agaaaaaaaa aagacgtttt attgactcag gcaccagaa 1740
aagttaaaca gaaagctatg caacttttca gaaattcaag tccacatcct tgtcgggtacc 1800
atttgtctga gcaagaatta gtctgcaagt tcagttctgc cctgaccag tcacagccct 1860
ttttttgttt tgttttgttt taactactgg aggatacttg gggagaaatc agcaaaatgt 1920
gttactgttc ttacaaaaca atttcatttt gaataaatta aaatgcttag aaaaatctaa 1980
tgtatttatt ttcaattgta cagcagtttt gttttgtttt gtttgccact aagaagtata 2040
agcatttttt tcttactctt tctcctgac ataaagatga gtcacaattt gttacattgt 2100
ctggaagaca cagtcccaga agctgcctct ctctgcttgg tggactgagg cctgtggaag 2160
tctcaacctt ctttcttttc caagggacca tcttcctga tttcatgct ttccccagt 2220
tacagtaggc ttaaccaca gaacagcaaa gggggaattg gtctctcctt tgctcagaaa 2280

gggtcatcac tatgttaatg acagctcata atatgttgct tgattttttt tttttaatga 2340
tgatgcctaa gttgccagtt tgcaccttgg gtatttggtc cccttttgcc tagattaagt 2400
cctcataaaa tgtctcaaga tattttgagt tcattgtcca ggtaaacctt taaatataaa 2460
agcagctctt ggtaatacca cattcctatt gccaggaag aattttgggt ttcaaatacc 2520
tactgcctgt ctagctgcaa ttgtttactt tacctatgtc actggccagt aaagctccta 2580
tcattcattc ctactgcttt gttagatagg ctgtgctata tttgaataat tttaaagata 2640
tacttaaaac tacattcatg ttttaaatta aatagacttt cagaaaacgt catcatttac 2700
atacagtttt cccctttcat ggctaactta aggatagaat ataggactgt cattttagtt 2760
tgttcttttt ttgttttttg ttttttgttt tttttgagac aggggtctctc tatgttgcc 2820
atcctggagt gcaatggcta ctacacaggtg cgatcatagc aaactatagc ctctaactcc 2880
tgggctcaag cattccccg acttcagcct tccaaatagc tgggactaca ggcgcgcacc 2940
actgtgcttg cctggttgct aatttttttc tcattgtgga gtccaaaaac atctttttgt 3000
aatttatata ggggttaatg tctgaatatg ttaaaggaca aactggattg tggttaaaat 3060
atatgtcata tattttatac tacagataga ttgatacata tagatcaatc acctatttta 3120
cctaaattgt gtcattggtt atttgaagtg gatattctca ttttatactc agatatcaaa 3180
ataagtttaa tttatgaatc ttcaaagaat ttaaccctct tttatttaac ttttttctct 3240
tttatcccc tctcaggga atgccttggg tcccaagact atcttgagct ggctaacaga 3300
tttcctcagc aggcctggga agaagctcga cagtttttct tgaaaaaaga gaaaaaataa 3360
atgttttggg tgattctgta tttgagtacc ctgtttaata ttttaaattg tccaaacaaa 3420
cattctaatt gttccttaag aactcatttt cccatgttta tactcttccc aactgttaga 3480
tatggcatgt actttacact atttataatg actgtagata cttgaatgtt ctacttgcta 3540
attttgcaag ttgagtttat ttcatttatg cagagtatct tggagtttgg taatttccat 3600
cttatgataa tatatacttt gcatttgtga tatgggtgaa aggagacata aaattagcaa 3660
gtctgttttg ttcttgtaat aaagtaactt attctgtttt cattgttgac ttttcatgtt 3720
aaggaaatac gaatctgaaa gaaaaatgtt aactccagct cttgaagtat cttaaataaa 3780
gacttaatta aagttt 3796

<211> 3287

<212> DNA

<213> Homo sapiens

<400> 1364

```
aaaaaacctg cagttgccgg gtcagtggat cccatgtgca gagggcgaga cggggccctg    60
gccaggcggtt gggaggcggg aggctcggcc ggcgctccgg gtgaggatgg cagcccccg    120
cccttgcttc tgcgcacagg gaaggcattc ggccccgaac ttgggggtca aaacggttca    180
gttcgctgcc tttcccatcc tgaccagacc cggggttttt tccgaagccg ccgctggata    240
ggttgcatta ctaggttcc cccagccact ctccctgccc aaagccttca gaagccgccc    300
ctctcccctt cacctggccc ttatccactg tcccagcctc atttcttcc ccctccctga    360
atgtcttctg ctccccttcc cttgggcact gcccttatcc tggggtcctg gctgctgcca    420
ttcctggccc tggaaaacca gtgcggaacc caaagaaagg tggaagagca gcttttagag    480
aggtgttttt attctttggg gacaaagccg gggtctgtgg gtgtaggatt ctccaggttc    540
tccaggctgt agggcccaga ggcttaatca gaattttcag acaaaactgg aacctttctt    600
ttttcccgtt ggtttatattg tagtccttgg gcaaaccaat gtctttgttc gaaagaggga    660
aaataatcca aacgtttttc ttttaacttt ttttttaggt tcaggggcac atgtgtaggc    720
ttgctatata ggtaaattgc atgtcaccag ggtttgttgt acagattatt tcatcatcca    780
gataaaaagc atagtaccag ataggtagtt ttttgatcct caccctcctt ccatgctccg    840
acctcaggta ggccccagtg tctgcggttc cttcttttgt atccatgtgt actcaatgtt    900
tagcttctac ttataagtga gaacatgtgg tatttggttt tctgtttctg agtgagttca    960
tttaggataa tggcttccag ctccatccac gttgctgcac aggacatgat ccatttcttt   1020
tttatggctg catagtattc catggtgtat atgtgccaca ttttcttttt tttttttaag   1080
gcagagtctc gcttggttgc ccaggctgga gtgcagtggc aggatctcgg ctactgcaa   1140
ccaccacctt ccaggttcaa gcgattctca cgcctaggcc tccaagtag ctgggatgac   1200
aggtgctcgc caccacgcct ggctaatttt cgtattttta gcggagacgg agtttcgcca   1260
tgttgccag gctggctctca aactcctgac ctcaggtgaa ccaccgcct cagcctccca   1320
aagtgctggg attacagaca tgagccacca ctccctgcca ccacattttc tttatccttt   1380
ctaccactga tggacattta gtttgattcc ctgactttgc gattgtgtat agtgctgccg   1440
```

tgaacatttg tgtatatatg tctttatgac agaattgattt agatttccttt gggatatataa 1500
ccaataatgg gattgctgag tcaaatggta attctgttta atcatgtccc atttgtcaat 1560
ttttgctttc gttacaatta tttttgggat ctttgtcatg aaatcttttt ccgttcctat 1620
gtccagaatg gtattgccta ggttatcttc cagagttttt atagtttggg gttttacatt 1680
taagtcttta atccatcttg agttgatttt tgcatatggg gtaaggaagt ggttcagttt 1740
caatcctctg catatggcta gctagttatc ccagtaccac ttactgaatg gggaattctt 1800
tccccattgc gtatttttgt caactttgtc aaagattaga tggttgtagg tgtgtagctt 1860
tatttctggg ccctctattc tgttccattg atctatgtgt ctgcttttgt accagcacca 1920
tgcttttgta ccagtatcat gcagttttgg ttactgtagc cctgtagtat agtttgaagt 1980
tgggtaatgc gatgcctcca gctttgttct ttttgcttag gattgctttg gctttttggg 2040
ctcttttttg gtttcaaata aattttaatg cttttttttt ctgattctgt gaagaatgtt 2100
attggtagtt tgataggaat agcattgaat ctataaattg ctttgggtag tatggccatt 2160
ttaacaatat tgattcttcc tatccataag tatggaatgt ttttccattt gtgtcatctc 2220
tgatttcttt cagcagtgtt ttgtaatttt tgtttagag atctttcatc tccctggtta 2280
gctgtattcc taggtatttt attctttttg tggcaattgt gaataggatt gcattcttga 2340
tttggctctc agcttggatg tcgttgggtg ataaaaatgc taccatattt tgtatattga 2400
ttttgtctcc tgaaagttag ctgaagtgtt ttatcagatc taggagcttt tgggccaaga 2460
tcatgggggt ttctagatat agaatcatat cgtctgcaaa cagagatact tcgacttcct 2520
ttcttttttg ttgcctttta tttctttctc ttgcctgatt gctgtggcga ggacttcag 2580
tactatgttg aataggactg aagtgccttg ttctacttct caagagtaat gctccagctt 2640
ttgctcatc agtatgatg tggctgtggg tttgtcatag atggctctta ttattttgag 2700
gtatgttcct tcgacgcctg gtttgttgag ggtttttaac atgaagtcaa gttgaatttt 2760
atcaaaagcc ttttctgtat ctattgagat gatacgtgag ttttgttttt agttctgcca 2820
aaccttttct tttaaagccc aacgaataaa acccatcacc tttcacaaga ccaccacagc 2880
aagtaggcag gaatgccagt gttaaaagtg aaatcttttg aattttagt accttcctt 2940
ttccaaatct agctgaaatt tctcattgt tttccttttg atgaagctaa ccaccggcat 3000
ttctcctaag aaatggatat aaaaaagtt tgatatgggt aaagtaagaa gtgctagctc 3060
ctagaatatc tctggatatt gctgtccctt gttacagagc atgagccctg cccaaagact 3120
ggagtgtaat ggcatagaaa aggtcaggag cccactgagc cagaagtata ggaggcttgc 3180

gacaaagttt aacaggggcc tgttgctatc actgggtgga gggacagatg ggagaacact 3240
cacaccatgg aatcttaggc agccattaat aaaaataagc cacactg 3287

<210> 1365

<211> 3058

<212> DNA

<213> Homo sapiens

<400> 1365

acgtgagacc accaagttca ctgcttcaag cagcttagag tccagagggc atggacacat 60
gccggagcca ggacaagaag agccaccaga aagaaggcta ggcattaagg aacagcaagt 120
gcaaagtcc tgagggaaca agcagacaga gtctcactac gttgcccagg ctgttctcca 180
acactgggct agtgatcttc ctgccttggc ctcccaaagt gctgggatta caggtgtgag 240
ctgcaaggct aggtcctcgg gctcctcagg ccctgggccc cctcccagga atgagtcccg 300
ccgctccagc acaaagggga agaagccctc gtcgccgctg ggagaggcgc cccctgagag 360
cggcccggac gggaagctgg gcccatctgg agagctcatg tcacctgcag catctgcggg 420
gacaggtggc tgcgggacac tctactctgc agcctgacag gggctcaccc tccgccagc 480
acctggccct ccaggaattc tccacctgct gccagcctgc ccggtcctgc agccagggt 540
tcctgggcca caaagggtta atgacctgtg ttttggctac ccagttccgt taatgtccct 600
ggggtaaact gaggcaggaa gcagaaggaa atgacctgcc cagcctttgg cctctgccag 660
acaatctctg tccccaggaa agctcattcc agtgctccag ggccacaggc cacctctgct 720
ccctgtcccc tctcttcca gaaccagca gtttggcttg tagccctcg ccatctgaga 780
cagttcccag aaccaggtt ctcagggact cagcagttgg agttgagccc agcctcttct 840
ctcaggaatg caggacccta aggcttggga actgaggtat cttcgcccc aggaatccag 900
ctccttcccc tgccagaagc ccagatccca gccctgacc tcccgggtct ctgcacctca 960
ttctcctgct acctcctgag caggtgcttt gactccaccc tccagactca gaggtcccca 1020
cctccaatgt cccccacaa ggattccac cccagtcccc attttcacg ggactcaggc 1080
attcatgccc ccaccctcc ggactcagga gccctgacct tcagccccc agtttcccag 1140

ggccctggcg tggggcccag gacagggcga ggtaacaggt tgtgccggcc gcccggccgc 1200
agcgcggtc ggagtttctg tttacttccc ggtccgcccc tggggacggg agccctgggc 1260
tcccctaggg cggctcaggg gctggggttc aggggctcgg gtcagagggc ccgacacaac 1320
agctttacca gccccagccc tccgggggct caccaccac taggcacaca caccgtgct 1380
ctccctctc ctctcgccc gtgtccatgt gcagccctgc tcgcaggacg tgagtgtcac 1440
ggtggtccca gccagccgc cccagggcgc ctcccgggga cctccctgac ttggccctcg 1500
cgggccccgc tccccgccc ccctccacgc gagagacagg gacctggaga ccgctcccc 1560
tccccttcg cacctagctg cccaggtgtt ggggcctcca gcccagggc tcggaagccc 1620
agagaagcgg ctgggctcac cccgacggc tgagttctg ccggcgcccc cggttccccg 1680
gcgatcccg tccccctgcc cccgccccg ctccccacc ttctccggc acgcggccgg 1740
accaggccct cccaggtc gaggggccc gcccctcggc tccccaggc tctcaccga 1800
agccgcccgg ctccctccga ggtccccgc gtctccggtc cctcttcg gaggcggctc 1860
cagagatggg attttgctt gtcacgcagg ctggagtga gtggcaccat cactgcagtc 1920
tcgtctccc aggtcaagc gatcctcca ccacagcctc cccgtagct gggactgcag 1980
gctggagtac agtggtgcca tctcagctca cagcagcctc cgctcccggg ttcaagtga 2040
tctcctgtt cagcctgcct cccaaagtgc tgggattaca gagtgaacca cctccccggc 2100
tcaacttggt gactttcatg atgacctgat gacgaggaa tgctgtcatc ccatcttac 2160
agatgaggaa gctgaggctc ggaggcggag gggggtctc caccttggtt ggggtccct 2220
ggtcagaact ggaagactcc agggctccct gggcctcgtg acaggggctc ctggcctgga 2280
gagcaggaca gatggaaggc tgggagcagt ggcgtgctgg taagcgttta acaacaggct 2340
ccccggctaa aacaatagc ctgctcgtt gcat ttgcca atatccatga tgcaatacct 2400
gctcctcggc tgacttccag ctactcacct ggcgtcacgg agtgcagagg tagaaggggc 2460
tgtgcacatc agctctggct ggctgggtgc agctgggtcc gtgcacctct ggctggggat 2520
caggactcct gagtcttggg ggactggggg ctacttactt gggttctaga aaaataggag 2580
gagggtgggg gctgggactc ctggcttggt ggaaaagggg agcaaggact ccttgagggg 2640
gtgacttagg aactgggact cctgggtcct ggggctggga cagggttttc tgccagcaga 2700
gagtagggga gccagagatt tgtcttacag ccacattgcc cagcaagcct gacactttct 2760
cccactgcac ctgtgggagc agcctggtag ccaactggagg actgaagaca tcccagcctc 2820
ccctgggtgc tgctatgtga ccctctggaa atagaagctc agtgtccct ccaaatgcca 2880

gtcaccctgg gcccactca caccacacg tagcacatct tgagcgcctc ctgccaggct 2940
gagctcatcc caggatgaag tgattacagc cctactccca gaagggtcac agtccacctg 3000
ggccatggga gggagcgtag acctataaac cagaaatgaa ccaataaaac agtacagc 3058

<210> 1366

<211> 4439

<212> DNA

<213> Homo sapiens

<400> 1366

cttaaaaaag atccaacaaa atagaccgct agcctgacta ataaagaaga aaagacagaa 60
gaatcaaata gacacaataa aaaatcataa aggggatatc accactgac ccacagaaat 120
acagactacc atcagagaat aatatgaaca cctctatgca aataaactag aaaatctaga 180
agaaatgtat aaattcctgg acacatacac cctcccaagt ctaaagcagg aagaaatcga 240
attcctgaaa agaccaataa cgagttctga aattgaggca gtaattaata gtctaccaac 300
caaaagtcca ggaccagatg gattcacagc caaatcctac cagaggtaca aagaggagct 360
ggtactgttc cttctgaaac cattccaaag aatagaaaaa gagggaatcc tccctaattc 420
attttatgag tccagcgtca tcctgatacc aaaacctcac agagacacaa caaaagaaaa 480
tttcaggcca atatccctga tgaacatcaa tgcgaaaatc ctcaataaaa tactggcaaa 540
ctgaaaccag cagcacatca aaaagcttat ccaccacggt caagttggct ccatacctag 600
gatgcagggc tggttcaaca tacacaaatc aataaactta atccatcaca taaacagaac 660
caatgagaaa aaccacatga ttatctcaat agatgcagaa aaggcctttg acaaaattca 720
acacccttc atgctaaaaa ctctcaataa actaggtatt gatggaacat atctcaaaat 780
aataagagtt atttatgaca aaccacagc caatatcata ctgaatgggc agaaactgga 840
agcattccct ttgaaaactg gcacaagaga aggatgccct ctctctcact actcctattc 900
aacatagtat tggaagttct ggccagggca atcaggcaag agaaagaaat atgggggtatt 960
caaataagaa gagaggaagt caaattgtct ctgtttgcag ataacatgca atttttagat 1020
ttagaaatat ctacatctaa aatagattga gattttctaa ataattatta gaaaacccca 1080

tcattctcagc cccaaatctc cttaagctga taagcaactt cagcaaagtc tcaggataca 1140
aatcaatgt gcaaaaatca caagcattcc tatataccaa taacagagaa ccaaatcatg 1200
agtgaactcc cattcacaat tgctacaaag agaataccta ggaatccaac ttacaaggga 1260
tgtgaaggac ctcttcaagg agaactacaa accactgctc aaggaaataa gagaggccac 1320
aaataaatgg aaaatatctc atgctaattg ataggaagaa tcaatactgt gaaaatggcc 1380
atactgccc aagtaattta tagattcaat gctatcccca tcaagctacc attgactttc 1440
ttcacagaat tggaaaaaaa tacttaaaat ttcatatgga accaaaaaag agcccatata 1500
gccaagacag tcctaagcaa aaagtacaaa gctggaggca tcacactacc tgacttcaaa 1560
ccatattaca aggctacagt aaccaaaca gcatggtact ggtacaaaa gagatatata 1620
gaccaatgga acagaacaga ggccttagat ataacaccac ctatctacaa ccatctgac 1680
tttgacaaac ctgacaaaa caagcaatgg ggaaaggatt ccctatttaa taaatgggtg 1740
tgggaaacct ggtagccat atgcagaaaa ctgcaactgg accccttcct tacacgttat 1800
acaaaaatta gttcaagatg gattaaagac ttaaccataa gacctaaac cataaaagcc 1860
ttagaagaaa acctaggtgt taggaacagt ttctcttcaa aggatttcac ccgccttgct 1920
ctttgttcta tttttaagtt atctttcctg cctttaacag gcccaggcat ccaccaagct 1980
tgtagctgac ccacactgcc ttactttaag ttgttaggta caaacaataa acttcctggt 2040
tctttgtcct attctaaatg ctaaattctag tcaattggga tctgtttaga ttgtgcagtc 2100
tgaccccaat taacggggga ggtgggggag gcagggaaga cacagaaaca ggagcggcat 2160
taggaataaa aaccctgct ttctttgtt cgggtgtgctc ttgtgattgt gactgacgca 2220
ggcagcaccc ttctgcagaa gtaaatttac cttgccgaga agtcttttga gtgttcgttt 2280
tctttgcaac tcccagctca tttctaaca tttgggggcc ctgcctggga tccattctt 2340
ctccggagaa gggctctcgg tcattctctg ggaggggatg catccactg acttggtgca 2400
gtggcctcaa aggctggaga ctgagacca ccggttgta caaataaacc tggaatctca 2460
gcaacgcgag aagacaagga ctacaatac tgtggcgacc aggtaactat gtgcacagac 2520
caaggtaaga aaagccgctg ggggtggtgaa gtgcttcctt gatggttgga gtatcttgga 2580
ggttgaaagt gcgtgaatgg taacaagcac tactgctgtg cagagtgagt gagtccaatc 2640
tgcagttccg tggtaactc acatggctta tggcgccct ttgggggtcc cgtcagggtt 2700
ttctactgat ccatcaatgt taagagggac ctaaattccc tctggggaag tagccagaga 2760
agacgaagca aaaggagaag agtgcgagaa acctccagt gttggggggc agggggcggg 2820

ttgaggctat aggaaaggaa aggcaagaaa tctccagcag gggggcattg agcttcacac 2880
aaacttccaa tagttgggaa ggcaagaaac ttccaatagg agatattgag cctcacccca 2940
aaacccccaa gatgggaaac accccaaata aggtagggca taaaaaggat aacactagca 3000
gcaataacat tccccctgat agtccccctag ggcttatgtt aaaatatgga aagataatga 3060
aaggactaaa cacaagaaaa agcaacagat gataaaatat tgttgtctca ttcggaccca 3120
ggaaccaatc ctggaaccct cagttttttg gccaaagttt gggtcatatg aggattggat 3180
gtgtcagctt tcaatagaac atattaatag taagagccct acctcccaag aggaaatagg 3240
ttatgcccta tgttggtggc aaggacctgt actccttcac cccctaaaga ctggaggggaa 3300
caagtcaaaa actaaccttt ggtggaaagt tggttgtaat cacacctcat caagttagaa 3360
ccatcttaaa tcaaaaggca ggaagggtggc ttactgactc aagaatttta aaatatgaag 3420
ctatcctgtt agagattatt taacactatc cactgatgat tcacttaacc cagcaggttt 3480
cttgactgga gatccaaatc taaagagacc tgaacatgag tgttttagatt taattaatta 3540
ccatacaaaa gttaggccta atttaagaga gaccctttc aaaacagggc agcacttatt 3600
tatagggtggc tcttgctgag taactgaagg aaaaagatat aatgggtact cagtagtcaa 3660
tcaatgggga agcccttgaa gaagtagggc ttgaagtagc ccttgaagaa gtcaggaaga 3720
ctgcccataa attggtctgc ccaaacatgt gaattgtttg cattatatca agcctaaagc 3780
acttgacaga ccaagaagga actatttata ctgattccaa gtatgctttc agggtagctc 3840
acacttttgg aaaaatttcg attgaacaag gctttattaa tagcaaaggt caagacctag 3900
ttcacaaga gttaatcacc catgtattta ataatctcca gggccaggcg tgggtggctca 3960
cgcctgtaat ccagtactt tgggaggccg aggtgggcag atcacctgag gtcgggagtt 4020
cgagaccagc ctgaccaaca taaagaaatc ctgtctctac taaaaataca aaaaaattag 4080
acagtcatgg cggcacatgc ctgtaattcc agctacttgg gaggctgagg caggagaatt 4140
gcttgaacct gggaggcgga ggttgctgtg agccaagatc acaccattgc actccagcct 4200
gggcaacaag agtaaagccc tgtctcaaat aaataaataa ataaataatc tccagctgcc 4260
agaataaata gctattgtcc atgtcccagg acacaagaaa agcctttctt ttgaaagtca 4320
aggaaataac cttgcagatc aaatagccaa acaagtggct gtttcctctg agaggcctgt 4380
ttttactta actccttgcc ttcttcccc taccacagtc cccattttct cttccactg 4439

<210> 1367

<211> 4231

<212> DNA

<213> Homo sapiens

<400> 1367

```
ggttaccgcc gtgtccgcac cgacccggcc atcccggggc tcggcgggtcc tctcgggctc 60
ctcgtggctc gtccggggccc cgctgctagc caaagggcag agtcggagga gctgccgggtg 120
ccggggcccgg caagagggcg ccggtgagga gaagaagaaa atgaggcaaa gattgaaaat 180
gtgcagaaaa caggtttcat caaaggacca atgttcaaag gtgttgcttc tagtcgattt 240
ttgccccaaag gcacaaaaac aaaagttaat ttggaagaac agggacgaca gaaggtgtca 300
ttcagcttca gccttacaaa gaaaactttg cagaataggt ttctcactgc acttggaat 360
gaaaagcaaa gtgatactcc aaaccctcca gctgtacctc ttcaggtaga ctcgactcct 420
aaaatgaaaa tggaaattgg tgatacctta tctactgcag aagaatcttc cccaccaaag 480
tcaagggtgg aattgggcaa aattcatttt aagaaacatc tgcttcatgt aacatccagg 540
ccactgctgg ctactaccac agcagtagca tctccaccta ctcatgcagc accattacca 600
gcagtgatag cagaatcaac aactgtagac tcaccgccct catctccgcc tccaccgcct 660
ccacctgccc aagccacaac actctcatca ccagcaccag taacagagcc agtggccttg 720
ccacatacac caataacagt tctaattggca gcaccagtac ccttaccagt agatgtagca 780
gttagatctc tgaaagaacc accaattata attgtaccat aatctttaga agcagatact 840
aagcaggaca ctatatctaa tagtttagaa gaacacgtaa ctcaaattt gaatgagcaa 900
gcagatattt cctcaaaaaa agaagattcc catattggga aggatgaaga aattccagat 960
agttctaaga ttagtctgag ctgtaaaaaa acaggttcta agaagaaatc ctcacaatct 1020
gaaggcatct ttcttggttc agaatctgat gaagattctg tacggacttc ttcaagtcaa 1080
agatcacatg atttaaaatt ttcagcaagc attgaaaagg aaagagattt taaaaagagc 1140
tcagcacctt taaaaagtga ggatctaggg aaaccttcac gatctaaaac agacagagat 1200
gataaatatt ttagctattc aaaacttgaa agagatactc ggtatgtatc ttcccgatgt 1260
agatcagaaa gagagcgacg gcggagcaga tctcactcta ggtctgagag aggctctaga 1320
actaatat cctattccag gtcagaacga tctcattatt atgactctga tcgtcgctac 1380
```

cataggagct ccccttatcg agagaggacg cgctattctc ggccatacac agataacaga 1440
gcacgagaga gttctgactc agaagaagag tataagaaga cataactcaag gcgtacctca 1500
tctcattcct cttcttacag agacctaaagg acatcatcct attctaaatc tgatcgggac 1560
tgtaaaactg agacctctta cttagagatg gaaagaagag gcaagtattc ttcaaaacta 1620
gaaagagaat ctaaaaggac ttcagaaaaat gaagcaatta aaagatgttg ttctccccct 1680
aatgaactgg gattccgacg aggggtcatca tattctaagc atgacagtag tgcttcccgt 1740
tataaatcta ccctttcaaa acctataccc aagtctgata aatttaaaaa ttctttctgt 1800
tgtacagaat taaatgaaga aatcaaacag tctcattctt ttagtttaca gacaccttgt 1860
tcaaaaaggta gtgaattaag aatgattaat aaaaatcctg aaagagaaaa ggctgggtct 1920
ccagctccat caaatcgatt aaatgattca cctactttaa aaaagctaga tgaattgcct 1980
atttttaagt ccgaatttat aacacatgat agccatgata gtattaagga attagactct 2040
ttatctaaag tgaagaatga tcaattaaga agtttttgtc ccatagaatt aaatataaat 2100
ggatctcctg gggcagaatc tgatttggca acattttgca cttctaaaac tgatgctgtt 2160
ttaatgactt ctgatgatag tgtgactgga tcggaattat cccctttggt caaagcatgc 2220
atgctttcat caaatggatt tcagaatatt agtaggtgca aagaaaaaga cttggatgat 2280
acctgcatgc tgcataagaa gtcagaaagc ccatttagag aaacagaacc tctggtgtca 2340
ccacaccaag ataaactcat gtctatgcca gttatgactg tggattattc caaaacagta 2400
gttaaagaac cagttgatac gagggtttct tgctgcaaaa ccaaagattc agacatatac 2460
tgtactttga acgatagcaa cccttctttg tgtaactctg aagctgaaaa tattgagcct 2520
tcagttatga agatttcttc aaatagcttt atgaatgtgc atttggaatc aaaaccagtt 2580
atatgtgata gtagaaattt gacagatcac tcaaaatttg catgtgaaga atataagcag 2640
agcatcggta gcactagttc agcttctgtt aatcattttg atgatttata tcaacctatt 2700
gggagttcag gtattgcttc atctcttcag agtcttcac caggaataaa ggtggacagt 2760
ctaactctct tgaaatgcgg agagaacaca tctccagttc tggatgcagt gctaaagagt 2820
aaaaaaagtt cagagttttt aaagcatgca gggaaagaaa caatagtaga agtaggtagt 2880
gaccttcctg attcaggaaa gggatttgc tccagggaga acaggcgtaa taatgggtta 2940
tctgggaaat gtttgcaaga ggctcaagaa gaagggaatt ccatattgcc tgaaagaaga 3000
ggaagaccag aaatctcttt agatgaaaga ggagaaggag gacatgtgca tacttctgat 3060
gactcagaag ttgtattttc ttcttgtgat ttgaatttaa ccatggaaga cagtgatggt 3120

gtaacttatg cattaaagtg tgacagtagt ggtcatgccc cagaaattgt gtctacagtt 3180
catgaagatt attctggctc ttctgaaagt tcaaatgatg aaagtgattc agaagataca 3240
gattcggatg atagcagtat tccaagaaac cgtctccagt ctgttgtggt tgtgccaaag 3300
aattctactt tgcccatgga agaaacaagt ccttgttctt ctcggagcag tcaaagttat 3360
agacactatt ctgaccattg ggaagatgag agattggagt caaggagaca tttgtatgag 3420
gaaaaatttg aaagtatagc aagtaaagcc tgtcctcaaa ctgataagtt tttccttcat 3480
aaaggaacag agaagaatcc ggaaatttct ttacacagt ccagtagaaa acaaatagat 3540
aatcgcctgc ctgaactttc tcctcctcag agtgatgggg ttgatagtac aagtcataca 3600
gatgtgaaat ctgaccctct gggtcaccca aattcagagg aaaccgtgaa agccaaaata 3660
ccttctaggc agcaagaaga gctgccaatt tattcttctg attttgaaga tgtcccaaatt 3720
aagtcttggc aacagaccac ttccaaaac aggccagata gtagactggg aaaaacagaa 3780
ttgagttttt cttcctcttg tgagatacca catgtggatg gcttgactc atcagaagag 3840
ctcagaaact taggttggga cttctctcaa gaaaagcctt ctaccacgta tcagcaacct 3900
gacagtagct atggagcttg tggaggacac aagtatcagc aaaatgcaga acagtatggt 3960
gggacacgtg attactggca aggcaatggt tactgggatc caagatcagg tagacctcct 4020
ggaactgggg ttgtgtatga tcgaactcaa ggacaagtac cagattccct aacagatgat 4080
cgtgaagaag aggagaattg ggatcaacag gatggatccc atttttcaga ccagtccgat 4140
aaatttcttc tatcccttca gaaagacaag gggtcagtgc aagcacctga aataagcagc 4200
aattccatta aggacacitt agctgtgaat g 4231

<210> 1368

<211> 3747

<212> DNA

<213> Homo sapiens

<400> 1368

cggagacccc catcggtcag ctgccaggcc ccacgcgctc gcggtctccg cgccccgacg 60
gctgcgcat gtgtatctgc gggacggcgc actcgggtgct ggacgagggc cccgtgcgct 120

gccgggcggg ccccgagac ctccttgagg cccgccgcc gcgggcccac gagtgcctgg 180
gtgaggctct gcgtgtcatg catcagatca tctccaagta cccgctgctg aacaccgtgg 240
agacgctcac cgcagccggc accctcattg ccaaggtcaa agccttccat tatgagagca 300
acaatgatct ggagaaacag gagttcgaga aggccctgga gacgattgct gtggccttca 360
gtagcacagt gtccgagttc ctcattgggtg aagtggacag cagcaccctc ctagcagtgc 420
ctcctgggga ctcgagccag tccatggaaa gcctgtatgg accgggcagt gagggcacgc 480
ctcccagcct ggatgactgt gacgccggct gcctgcccgc cgaggagggtg gacgtgctgc 540
tacagcgctg tgaggggggc gtggatgccg cactgtgtga tgccaagaac atggccaagt 600
acatgaagga cctcatcagc tacctggaga agcggacgac gctggagatg gagtttgcca 660
agggcctgca gaagatcgct cacaactgca gacagagcgt catgcaggag ccccatgc 720
cgctcctgtc catctactcg ctggccctgg agcaggacct ggagttcggc cacagcatgg 780
tgcaggcggt gggcaccttg cagaccaga ccttcatgca gcccctgacc ctgcggcggc 840
ttgaacacga gaagcgcagg aaggagatca aggaggcctg gcaccgtgcc cagaggaagc 900
tgcaagaggc ggagtccaac ctgcgcaagg ccaagcaggg ttacgtgcag cgctgcgagg 960
accacgacaa ggctcgcttc ctcgtggcca aggcggaggga ggagcaggct ggcagcgcgc 1020
cgggagcagg cggcacggcc accaagacc tggacaagcg gcggcggtg gaggaggagg 1080
ccaagaacaa ggcggaggaa gctatggcca cctaccgcac ctgcgtggcc gacgcgaaga 1140
cgcagcagga gctggaggat accaaggtga cggcgctgcg gcagatccag gaggtcatcc 1200
ggcagagcga ccaaaccatc aagtcggcca cgatctccta ctaccagatg atgcatatgc 1260
agacggcgcc gctgcccgtg cacttccaga tgctgtgtga gagcagcaag ctgtatgacc 1320
caggccagca gtacgcctcc cacgtgcgcc agctgcagcg ggaccaggag cccgatgtgc 1380
actacgactt tgagccccac gtctccgcca acgcctggtc ccccgctcatg cgtgcccgga 1440
agagcagctt caacgtgagt gatgtggcgc ggcccaggc tgccgggagc ccccagaag 1500
aaggcgggtg cactgagggc acacctgcca aggaccacag ggccgggcga ggacaccagg 1560
ttcacaagtc atggccgctc tcgatctcag actcggacag tgggctggac cccggccctg 1620
gcgcagggga ctttaagaag ttgagcgga cgtcatccag tggatccatg tcgtccacgg 1680
aggagctggg ggaccagac ggtggagccg gggcttcagc ctttgagcag gctgacctca 1740
acggcatgac ccccgagctg ccggtggccg tgcccagtgg accgttccgc cagagggggc 1800
tgtccaaggc ggcccgtact caccggctcc ggaagctccg cacgcccgc aagtgccgcg 1860

agtgaacag ctacgtctac ttccagggtg ctgagtgtga agagtgtgc ctggcctgcc 1920
acaagaaatg tctggagacg ctggccatac agtgcgggca caagaagctg cagggccgcc 1980
tgcagctgtt cggccaggac ttccagccacg cggccccgag cggccccgac ggcgtgccct 2040
tcatcgtcaa gaagtgcgtc tgcgagatcg agcggcgggc gctgcgcacc aagggcattc 2100
accgggtcaa tggggtaaag acacgcgtgg agaagctgtg ccaggccttc gagaacggca 2160
aggagctggt cgagctgtcg caggcctcgc cccacgacat cagcaacgtc ctcaagctct 2220
acctgcgtca gcttcccag cgcgtcatct ccttccgcct ctaccacgag ctctagggc 2280
tggccaagga cagcctgaag gcagaggccg aggccaaggc ggcgtcccgg ggccggcagg 2340
acggctcgga gagcaggca gtggcggtgg ccctggcagg tcggctgcgg gagctcctgc 2400
gggacctgcc gcctgagaac cgggcctcgc tgcagtacct gctgcgtcac ctacgcagga 2460
tcgtggaggt ggagcaggac aacaagatga cccccgggaa cctgggcatac gtgttcgggc 2520
ccacgtgct tcggccacgg cccaccgagg ccaccgtgtc cctctctcc ctggtggatt 2580
atccccatca ggccgcgtc atcgagactc tcatcgtcca ctacggcctg gtcttcgagg 2640
aggagccgga ggagaccccc gggggccagg acgagtcata caaccagcga gctgaggtag 2700
tcgtccaggt gccgtacctg gaggcgggag aggcgggtgt ctaccgctg caggaggcgg 2760
cggcggacgg gtgcagagaa tcccagttg tgtccaacga ttcggactcg gacctagagg 2820
aggcctccga gctgctgtcc tcatcgagg ccagtgcctt gggccacctc agcttcttgg 2880
agcagcagca gagcaggcc agcctagagg tggcttcttg cagccacagc ggcagtgagg 2940
agcagctgga ggccacagcc cgggaggacg gggacgggga cgaggacggc ccggcccagc 3000
agctctcagg attcaacacc aaccagtcca acaacgtgct gcaggcccca ctgcccccca 3060
tgaggctccg tggcgggagg atgacgtgg gctcctgcag ggaaaggcag ccggaattcg 3120
tgtgagctgg ggtggggctg ggaccacagg tggcttctct ctcgcctgct cctgtccctc 3180
cagcacgtcc cctgcaccac ggcatagctt aggtgcgccg tcctggggtc gctgccgaga 3240
gcgcttgac ttcgacgtcc caccagcggg cgctcctcc cagaggcttc caggagcacg 3300
agggccttgc ggcacaggac tgtgccctgt actgtccctt gcacccggc tcagctgagc 3360
tggggaacac tgctgtcgtg tgaagtcaca gtggccttgt tgggtgccac agggctgtgt 3420
ggatggagga agctgtccct gccagtga tccccaggc catcacgggg aagcaggagg 3480
caggccctgc cctgccctct cctcacaggc ctgttgagg gactccagaa accattctgg 3540
gagccgtgga tgggggagg gctgggggtt ggtgcagttt ccagggtgca gtacagcagg 3600

gcctgaatac tggccctgga ctcccttttc cagaacacca ggtgtggcca cctggggctc 3660
aggtacacag tggggctctct cggaagccac cgtgtgggttc tttcacaggc acgtttatatt 3720
tgctgaaata aaaagttttt aatcggg 3747

<210> 1369

<211> 3602

<212> DNA

<213> Homo sapiens

<400> 1369

cggcttatca tataacaaaa tcagcaaaat tgaaggcata gaaaatatgt gtaatctgca 60
aaagcttaac cttgcaggaa atgaaattga gcatattcca gtatggtttag ggaagaagtt 120
aaaatctttg cgagtcctca atttgaaagg caacaagata tcatcgctcc aagatataag 180
caagttgaaa ctgcttcaag atttgatttc tctgaccta gttgaaaatc cagttgtgac 240
ccttcctcat tacctccagt ttaccatttt ccacctccgt tcattggaaa gtttggaagg 300
tcagccagta accactcagg atagacagga ggcttttgag agattcagtt tagaagaggt 360
agaaagactg gaaagagacc tagaaaaaaa gatgatagaa actgaagagc ttaagagcaa 420
acaaacaagg ttccttgagg aaattaaaaa tcaagataaa ttgaataaat cattaaaaga 480
ggaggccatg ttacagaaac agagctgtga ggaactcaag agtgacttaa acacaaaaaa 540
tgaattgcta aaacagaaga ccatagaatt aacacgagca tgtcagaagc aatatgagct 600
ggaacaggaa ttggcctttt ataaaattga tgctaaattt gagccactaa attattatcc 660
atcagagtat gctgaaattg ataaagcccc agatgaaagc cttacattg gcaaatccag 720
atacaagaga aatatgtttg ccacagagag ttatattatt gacagtgctc aggcagtaca 780
gatcaagaag atggagccag atgaacaact tagaaatgat cacatgaact tgagaggcca 840
cacaccactg gacacgcaac tggaagacaa agaaaaaaaa ataagtgcag cacaaactcg 900
actatcagaa ctgcatgatg aaatagaaaa ggcaagaaca caaattttga gagctactga 960
agaatttaaa caactggaag aagctataca actaaaaaag atttcagaag cagggaaga 1020
ccttctttac aagcagttga gtggtagact acaacttgta aataaattac gccaggaagc 1080

tctggatcta gaactgcaga tggaaaagca aaagcaggaa attgccggaa agcagaagga 1140
gattaaggac ctgcaaatac ccatagatag cctggattcc aaagacccaa aacattccca 1200
tatgaaggct caaaagagcg gtaaagaaca acagcttgac attatgaaca agcagtacca 1260
acaacttgaa agtcgtttgg atgagatact ttctagaatt gctaaggaaa cggaagagat 1320
taaggacctt gaagaacagc ttactgaagg ccagatagca gcaaatgaag ccctgaagaa 1380
ggatttagaa ggtgttatca gtgggttgca agaatacctg gggaccatta aaggccaggc 1440
aactcaggcc cagaatgagt gcaggaagct gcgggatgag aaagagacat tgttgcagag 1500
attgacagaa gtcgagcagg agagagacca gctggaaata gttgccatgg atgcagaaaa 1560
tatgaggaag gagcttgagc agctagaaag tgccctccaa gagcagcatg aggtgaatgc 1620
atctttgcag cagaccaggc gagatctcag tgcctatgaa gctgagctag aggctcggct 1680
aaacctaagg gatgctgaag ccaaccagct caaggaagag ttggaaaaag taacaagact 1740
taccagttta gaacaatcag cccttcaagc agaacttgag aaggaaaggc aagccctcaa 1800
gaatgccctt ggaaaagccc agttctcaga agaaaaggag caagagaaca gtgagctcca 1860
tgcaaaactt aaacacttgc aggatgacaa taatctgtta aaacagcaac ttaaagattt 1920
ccagaatcac cttaacatg tggttgatgg tttggttcgt ccagaagaag tggcagctcg 1980
tgtggatgag ctaagaagaa aactgaaatt aggaactggg gaaatgaaca tccatagtcc 2040
ttcagatgtc ttagggaaaa gtcttgctga ttacagaaa caattcagtg aaattcttgc 2100
acgtccaag tgggaaagag atgaagcaca agttagagag agaaaactcc aagaagaaat 2160
ggctctgcag caagagaaac tggcaactgg acaagaagag ttcaggcagg cctgtgagag 2220
agccctggaa gcaagaatga attttgataa gaggcaacat gaagcaagaa tccagcaaat 2280
ggagaatgaa attcactatt tgcaagaaaa tctaaaaagt atggaggaaa tccaaggcct 2340
tacagatctc caacttcagg aagctgatga agagaaggag agaattctgg cccaactccg 2400
agagttagag aaaaagaaga aacttgaaga tgccaaatct caggagcaag tttttggttt 2460
agataaagaa ctgaagaaac taaagaaagc cgtggccacc tctgataagc tagccacagc 2520
tgagctcacc attgccaaag accagctgaa gtcccttcat ggaactgtta tgaaaattaa 2580
ccaggagcga gcagaggagt tgcaggaagc agagaggctc agcagaaagg cagcacaagc 2640
agccagagat ctcacccgag cagaagctga gatcgaactc ctgcagaatc tcctcaggca 2700
gaaggggggag cagtttcgac ttgagatgga gaaaacaggt gtaggtactg gagcaaaactc 2760
acaggtccta gaaattgaga aactgaatga gacaatggaa cgacaaagga cagagattgc 2820

aaggctgcag aatgtactag acctcactgg aagtgacaac aaaggaggct ttgaaaatgt 2880
tttagaagaa attgctgaac ttcgacgtga agttttcttat cagaatgatt acataagcag 2940
catggcagat cctttcaaaa gacgaggcta ttggtacttt atgccaccac caccatcatc 3000
aaaagtttcc agccatagtt cccaggccac caaggactct ggtgttggcc ttaagtactc 3060
agcctcaact cctgttagaa aaccacgccc tgggcagcag gatgggaagg aaggcagtca 3120
acctccccct gcctcaggat actgggttta ttctcccatc aggagtgggt tacataaact 3180
gtttccaagt agagatgcag acagtggagg agatagtcag gaagagagtg agctggatga 3240
ccaagaagaa ccccatcttg tgcctcctcc tggatacatg atgtatactg tgcttctga 3300
tggttctcct gtacccagg gcatggccct gtatgcacca cctcctccct tgccaaacaa 3360
tagccgacct ctcaccctg gcactgttgt ttatggcca cctcctgctg gggcccccat 3420
ggtgtatggg cctccacccc ccaacttctc catccccttc atccctatgg gtgtgctgca 3480
ttgcaacgtc cctgaacacc ataacttaga gaatgaagtt tctagattag aagacataat 3540
gcagcattta aatcaaaga agcgggaaga aaggtggatg agagcatcca agcggcagtc 3600
gg 3602

<210> 1370

<211> 3312

<212> DNA

<213> Homo sapiens

<400> 1370

atcagctagc aagtattcac aggcacatcc aacctccatc cttacattcc acaaggattt 60
gagtgtctgt tataggtata aaagcctgcc gttggtggaa aaggaaaagg tgggtccagtt 120
agacaagatg ccaccggctt ctgaaaccag acatctttga aaaccacccc atctacctgc 180
aggaaaaggc aagggacctg acctcgctg ggctcaggga agaggttgct gggatcataa 240
ccccaggaag agacgggatg gaaggagagc atgcaggag cagaggacag gctactctcc 300
aaggaggaga gggaagaggc cacagaaatg gaaaaggggc caggacaagt cagtggagag 360
atggtcaggg cctggcgagg aggagcagga caaaagcggg ggagctcagc cccgtggcgg 420

cagggccact cccattcatc tggtcctcta cttctgaagt tctcgaatgc agaatgagat 480
gtacagatgg gccagcaggt gatatgttat ctgtcatagg ttaaggcctc attattttat 540
tcatttttaa actttttttt ttttgagaca gggctcttggt ctgtcgccca ggctggtttg 600
cagtgggtgcc accatggttc actgtaacct tgaagcccct gggctcaagt gatcctcctg 660
cctcagcctc cagagtaacg aggactacag gtgcacaccg ccatgcccag ctaatttttt 720
aacgttttgt agaggaaggc tctcactgtg ttgcccaggc tggctctgaa ctccttgact 780
caagcaatcc tcctgtcttg gcttcccaaa gtgttgggat tacagggtgtg agccactgct 840
cccagccaca agttttatct taaatgttta cctttcaatg atcacttcga ggagatttaa 900
gcttactctt tctttttttt ttttcttgag atggagtctt gctgtgtcgt ccaggctgga 960
gtgcagtggg gctatcttgg ctcactgcaa cctctgcttc ccaggttcaa gtgattctcc 1020
tacctcagcc tcccagtag ctgagactac aggcatgtgc caccactccc tactaatttt 1080
tgtattttta gtagagtcgg ggtttcacca tgttagccag gttggtctcg aactcctgac 1140
ctaaagtgat ctgcctgcct cagcctccca aagtgtctggg aggcatgagc caccatgcct 1200
ggctcattgt ctagttttta ccaagaagat gatgagatat gccagagggc tccgtatctg 1260
ctatgagaac gtccccaag agcagctggc cgtgggtgctg cagctggagc tgtgcttgga 1320
gctcttcttc acccccatgg cggtcaccac cttctgccac tggcactttg tgcagatcat 1380
gctctctggc cccaagtggg gacctggagg tgctgaagag ccaagagact ggctgccgtg 1440
accctcttca acttcttggg ctgcttggac cctgtgcttt gtctcccatg gtgggttccc 1500
ccagtggaag agtcaaattg gtgggcaggc gcagtgttgt tcagtgtctt cgatgtctga 1560
ttgaccctt gattttcttt gtttttggtt ttattttgtt ttgttttggt tttgagatgg 1620
agtcttgctc tgtcaccag gctggagtgc agtgggtgtga tgatcttggc tcaactgcaac 1680
ctccgcctcc tgggttctcc tgcctcagcc tcccgggtag ctgggattac aggcaccac 1740
caccacacc ggctaatttt tgtattttta gtagagacga ggtttcaacc cctactcagg 1800
ctgggtgtcaa actcctgacc gcaagtgatc tgcccacctt ggcctcccaa agtgttgcaa 1860
ttacaggcgt gagccaccat gccagccta accccttgat tttctgtttc tcttctcca 1920
ccgtgcgcaa agcctttgac agagggccac ggaggtggca gcacggcggg ggtctcactg 1980
tctgggtggg ggtgaaagct ctggagagcc agctgcagag agaagatgtg gatcttaggg 2040
acggccaatg tcaccttcac aggagattag aggcgccagc ttggggtaac cttttgggga 2100
aggagggctc aaaaagagga acaatgaaac agaactaagg tgagttctcc tgtgcccagt 2160

ttcagaggtc aaggagagta gtagatagct caaacccaac tcagccattg agtgagtgtt 2220
ttcatTTTTgt tccttgggggt ctatgatatt ttctatTTTtc ttttctttcc ttttgTTTTg 2280
gtttgtttgt ttgtttgggt gggttggttg ttggttggtt ttagagacag ggtttccctc 2340
tgtcaccag gctggaatgc agtagtgtga tcacatcaca ctgcagcttc taactcgtgg 2400
gttcaagcca tcctcctgcc tcagcctcct gagtagctgg gactccaggt gcacgccacc 2460
atggccggct aattgtttat tttttataga gacagggttt cactatgttg gccaggatgt 2520
tcaacaactt ctgccttcaa gcgatcttcc ctctggggcc tcccaagtg ctgagtttac 2580
aagcatcagc caccacacc agcctatgac attttcttca ttatggctgg tactgcctca 2640
tgaaaagggg gttcctcatg ctggatctga acaaccagc acaggcaagt ctggggagca 2700
aggcaggagc ctgcatgtgg actcaaagga ccggcacccg aaacaaagca gtggctggca 2760
cagggtggaca aaccaggcaa gaaaagcaac tgtccttcgg agcagagtcc acgtgatggg 2820
aagaaacaga cacagtctca ctctgttgcc caggctgaag tcaacggcat gatctcagct 2880
cactgcaacc tccacctcct gggttcaagc aattctcgtg cctcagctc ccaagtagct 2940
tggttacag taaaagctgc caaggtcctc ttcaacgtga tggcgtaa at ccagctcttt 3000
ctgcaagaag gctcaccagc ctccccacca gctcttctcc ccacccagc cctgcagccc 3060
tgcagcctga ccctaggtaa tgagtgggtg ggagtgaccc aggcatgcac gacctgccc 3120
gaggaaaggg agttcaaaga aggacccgag accctcacag gaacctagca gattggcaca 3180
agtgccagat gtatccagga cagacacttt cccaggact ccaggggtaa aggagtgcc 3240
cacctctcca ctcttgctt ttcttaactg aattcagatt gtcgtgaaca ttcaagaaaa 3300
gcattgtggc tg 3312

<210> 1371

<211> 3528

<212> DNA

<213> Homo sapiens

<400> 1371

tttagaataa atattactag acctaagaaa agagatacac agctgtacaa taatcatgga 60

ggacttcaac accccaccga cagcagtaag cagattagtt aggcagatta ttaggcagaa 120
aactaacaat gaaactgtgg actcaaactg ggctcttgac caaacagacc taatagatat 180
ctacagaata ctccaccag aaaccacaga atgtacattt ttctcatttg cacatggaac 240
attctctaaa attgaccaca tgctcagtca taaaataagc ctcaataaat ttttaaaaat 300
cacaactata ttaagtgtct tctcggacca ctgtggaata aaattagaag tcaatatcaa 360
gaactctcag aaccacagag gtacatggaa actaaacaat ctgctcctga aagacttttg 420
tgtaaataac agaattaagg cggaaattta aagaaattcc tgaaacaaat gaaaatagaa 480
acataacata ccaaaacgtc tgggatacag aaaaaacaat gttaagagga gagtttataa 540
cactaaatgc ctacataaaa agagagaaaag atctcaaatt aacaagctaa aatagccaaa 600
cactagaa aagaacaaac caaacccaaa gctagtagaa ggaaataaca aaggttagag 660
aataagttaa tgaaattggg accaaaaaaa ccatacaagg aatcagcaa attaaaaagt 720
tggttctttg caaggacaca taaaaatgat agattgctag ttagattata caagaaaaaa 780
gaagattcca ataagcacia taaaaaatta caaatgagac attgcaaagg ataccactga 840
cataaaaaaa gatcctcaga atatgtttgt gtgcataaac tagaaaacct agagaaaatg 900
gataaattcc tggaaacaca caaccttcca agactgaatc agaaagaaac caaaagtcca 960
ctagggcagt gccaacagga aatatgggat tgaagcctcc acacagtccc cactggggca 1020
ctacctacag gagctgtggg aatggggccg ccacctcgag atccctgaat ggtagagcca 1080
cgggaagctt tcctcctgag cctagaaata ccacaggcac tcaactctga tccaagacag 1140
cagccatggt gactgtacac tgcaaagcca cagaggcaga gctgcataag gtcttgggaa 1200
cccaccctt gcacaagtgt gccctggatg cggtagatga aatcaagaat tattttggag 1260
cttgaaggtt ttatgtttgc cctactgggt ttcagatttg cctgaggcct gttgccctt 1320
tcttttgccc aacttcgcca tttgggaatt ggaatattta cccaacacct gtactgcgtt 1380
gaatattgga agcaaataac ttggctttga tcttataggc tcacagatgg aggaacgtac 1440
cttgaagttc agatgagatt tcggactttt gagttgatgc tgaaacagct tgagattttt 1500
ggggactact gagagatgat aattgtattg tgcaatatga gaaggacatg agatttgggtg 1560
ggcataggtg tgaaatgaca ttgtttggat gtgtttacc tccaaatctc ttgttgaatg 1620
tgatcttaaa cgtttggtggt gggcctagtg gaaggtgttg aatcatgggg gtggactctt 1680
cataatttgc ttagctccat ccccttgggt atgagcaagt ccttgctctg ttgtgtcaca 1740
tgagagctgg ttgtttaaaa cagcctgccg tgttcccctt cttgctattc atttctctct 1800

tgacacgtga tacactggcc ctcactttgc cttcctctgt gattggatgc tttctgaggt 1860
ctcacccaaa cctgagcagg tgctgggtccc atgcttctac tgcctgcaca actataaacc 1920
aaataaatat tttttctcta taaattttaa aaaaatctga ataaaccagt agttaattat 1980
gaaattgaat ttgtaataaa aatattttatc aggcaggaga agcccaggac tagatgaatt 2040
cacagctgaa ttttaccaag catacaaaaa aatagatggg atcaatctta ctgcaaccat 2100
tctaaaacat tgaggagaag gaattcctct ctaactcatt ctacaaaacc agtatcatcc 2160
tgacactaaa atctagcaag gaaacaacaa caacaaacta caggccaata tctgatgaac 2220
atagatgcaa atatcctcaa caaaatgcta gcaaaccaaa tccatcagca tatcaaagat 2280
gtaattcatc atgattacat ggggttttatt cctgggatgc aaggactatt taacatatgc 2340
aaatcaataa atgtgattta ccatataaac agaattttaa acaaaaatca tatgattatc 2400
tcaatagatg cagaaaaaaa tattcaataa aattcaacat ccttgccagg tgcggtggct 2460
caaacctgta atcccagcac tttggaaggc agagggtgggc caatcaacag aggtcgggac 2520
cagcctgacc aacatggaga aaccccatit agaactaaaa atgcaaaatt agctgggcgt 2580
cgtgggtgcat gcctgtaatc ccagctactc aggaggctga gtcaaaagaa tggcttgaac 2640
cggggagggtg gaggtggcag tttgccaaga tcacaccact gcactccagc ctgggcaaca 2700
gagcaggact ccgtctcaaa aaaccaaacc aaaccaaacc aaacaaaac aaaaaaacc 2760
ctgaaatcat atcaattatt ttttctgagc agagtggag agtattaaaa aatcagtaac 2820
aggaggaatt tttttcctga ccgtctttgg ctccctctct caccacctt tttcttctc 2880
catctacccc aaaacttttt cccaccatt tttcccccac tgcctttttg caaagccttc 2940
tatactttac cgctcacttc cattttcccc acccatctac cccaaaactt ttccccaacg 3000
tcttttctcc ctctccctgg ccagcctttt ttccacctcc tgctctcatc atctctttt 3060
gtccttcaa ctcccaaaaa catttccctc atcttttccc aaagccttct cccactcct 3120
gctgctgcc accctctctt tccccttcca tctacccaaa aactgtttcc ctatcatctt 3180
tttctccat cctccttgcc accctttccc ttctccatct accaaaaaca ttttcccgcc 3240
gtctttttgc aaagcctctt ctctcctcct gctcaccacg ctcttttaac ccatctacct 3300
ccccaatttt tccctgccac cttctcacia agccttcccc gcttcccgt caccctcttc 3360
tttctctgt cctgcttgcc accctctttt tgccttccat ctaccccgaa ctattttccc 3420
catactcctt aactatttcc tcatcaccca actaaaaata ttaaacacaa actaccacct 3480
acctccctca ccaaagccca taaaaataaa aaattataac aaaccacc 3528

<210> 1372

<211> 3921

<212> DNA

<213> Homo sapiens

<400> 1372

aaaatgaaaa	aggctgactc	taacaagtat	tgggtgtccct	gtagagcaac	tgggtggggtc	60
taaattggta	taagtacttt	gaaacactgt	tcagcagtac	ctggtaaaga	ttgacatatg	120
gatataacct	gtgagtcagc	atctcctctc	taggggtgtat	acctgtagat	atcaaattgac	180
atgtaaaaaat	tgtgttcaca	tcagcacttt	tcaagatagc	cccaagctgg	aaacaatcca	240
agtgtcatca	ggagtacagc	agataagtaa	attgtggcat	attcatacat	tggaatacta	300
tatagcagtg	ctttcttaac	ctacctgtag	gtgaggaacc	agattttttt	ccctaaaaat	360
ctgtcaggat	gaaactcttg	tgtaatacaa	tattacatac	aacgccaac	tgctcaaaag	420
tttctaaatg	ttcacacata	ccttctgtac	tcatgggtgt	gcaggccagt	gatgaacagg	480
gtggggacca	gcagtgggtac	acaacatac	ttcaaatagc	actgtctctc	aacaatgaca	540
aagaacagac	tgcaactaca	cagagtagtg	tgaatgaatc	tcacaagcca	acacaagagt	600
ctgtatttta	tgattccata	cgtgtaaagt	tcagtagcaa	ccaaaatact	aacctgtgac	660
attaacaagt	tagaattacc	cttgaggagc	agaagatggg	catttgtagg	gggtatggaa	720
agaattctgg	gattcttaat	cttggcattg	catgattttt	atgttggcta	tatgggtatg	780
ctcattttgt	caaaatttag	ctgtgtgctt	atgatttgtg	cacttttctg	tatgtacatt	840
atacttaaca	tttacattaa	aattttattga	tgacctatta	aacacacacc	ctctttcctc	900
attaaggtag	tagattagtg	gaggaaacaa	agtgtatgca	agtaaacaaa	tgtgaaatta	960
caaattatga	tttcatgaga	gaaaaaagag	tcttctcgga	gaagatactt	tagctgaaac	1020
ctggagtatg	caaaggaacc	agcgatgcaa	agagcagagg	caaacaatcc	agggtatttg	1080
gtagttgttt	tgagtagaga	aatagagcta	atttagtgga	tttagagtaa	aagaggacat	1140
tgtagacatc	gggtacaact	tgggagttga	tgttatcaaa	actggaaaag	agtgattctc	1200
atcagttccg	tgtaatggca	gctgtccttc	gtcattgttt	actaatcgta	ggtccaactg	1260

aagacaaaac agaagagcta cacagcaatg cagtcaacct tttaagcaat gttccagtct 1320
cttgtttgga tgttctcatt tgtccgttaa cccatgaaga aacagcccaa gaggcaacga 1380
ctctagatga actgcccagt aataaaacag ctgagaaaga aacagttttg aaaaacaata 1440
ccatggtata caatggtatg aatatggagg ccattcatgt ttactgaat ttatggaga 1500
agagaataga caagggaagc agctatagag agggctaac tccagttctc agcttattaa 1560
ccgaatgttc ccgagcccat cgaaacatcc gaaaatttct caaagatcag gttttaccac 1620
cgttgaggga tgtgacaaat cgacctgaag ttggctcaac tgtgagaaat aagctggtgc 1680
gcctcatgac acatgttgac cttggagtca agcaaattgc tgctgaattc ctttttgtcc 1740
tttgcaaaga gagagtggat agtctgctga aatacactgg ctatgggaat gctgcaggac 1800
tgttggcggc caggggcctc ttggctggag gaagaggaga taattggtac tcagaggatg 1860
aggacacaga cactgaagaa taaaaaatg caaaaccaa ctccattgaa ttgaggaga 1920
gaagccatct ctcaagaggc aaataagcat gatctacata gttaatacat ctacctccc 1980
ttatactttc ttctaaggcc tgattttctt tgcttgggaa gtgcattaat cttatcactg 2040
gtcattttaga ggaaccaatg ccaaacccea tagatgaaat gacagaagaa caaaaagaat 2100
atgaagccat gaaacttgtc aacatgcttg ataaactttc caggagagca gatgtgaagg 2160
acctgcacca ggatggtggt tagcaacagt ggcccgtgcc aaagcactta ccaaagtgat 2220
gatgactaag accctgtcat taattccatg tgtcaatact gccctgtagt acacagagca 2280
gacaagaaag aagagccctt gaaaacaagg gaatgatttt tgagtcgtta tcaagctaag 2340
tggaagcgg gaagctgaaa ctcgatatagt tgaacattct tggaggctta tctcttcct 2400
ggccagatgc ctgatcagat gagaagcccg ccatgatact gtcacagtgc ctagaatggg 2460
ctctttatcc agtagacacc actgtacttt ttgatacgag ggcagcttta acttgtgtta 2520
aggcctgtgt gtagcattga agagaggagt tgcttaaacc aatgggacta aaacctgatg 2580
ggacaataac gcctttggag gaagcactca accagtactc tgtcatcgaa gagaccagct 2640
ctgacacaga ctaaaagcat cacctgctca actctcaata ttgctttatc agcatctttt 2700
ctctgtagct ccaggggaat cttttctcta aaacatttat gcccttgctt tggctagaaa 2760
cacattaact ggtttactca ttgagaatcc agcatattta agaggtgacc ctgtgttttt 2820
tgtgatattg aggcattcat acagagctgc agttagacgg gggtacgggg gctaaaagca 2880
gaaaaaaaaat tccatttcat cgggatggaa ctgaaggatt ttattctata aagcggccct 2940
ggttgaatct ggcaattctt ttgccaaga tccctagcag aagatttagc catgtccttc 3000

ccctcacttg tgtgagtggc cccttctgaa tctctccagc agccagaggc acgtgagaag 3060
 cagaaagagc tggtaaataa agccttgggc aagcgacttc ttagatcaga actcaccaaa 3120
 tggaagccta gcagctgctc cataaaccta gccccattct tcatatcaat tttgtataaa 3180
 tatatagaaa cacacacaca gcctcagact tacaaactga ttatactcta aaagtttgta 3240
 tgtcagttag ctaaaacttc agaatacatt tctccctata aagagttata aatgatggtt 3300
 tagttctcag gcagctacaa atgcctatit attccctaata gtacctgaac actagtacca 3360
 tagaactgaa ccaccatctg tatcagcgca tggggagtgt gcattctgag gtctaaccgc 3420
 ggggtgccagg aacacacaca tctccatcc cagcatagag aatggggact ccctgagtaa 3480
 tgggagttct ttcattggcct ctgcttgggg tgggggagtc agcagcacc atttgtacat 3540
 ataggtcatt catacatcac attttaaatt ggggactgtg tgtgctggtg tgtgtgtgag 3600
 ttctacgttt ctaccatatg tgatcagttt aatagtaact ttatttattt aaaaaaaga 3660
 aacacaatta gttactgtta aactgataaa ggggtgtttat ttttactttt agaattggtc 3720
 ctatgaagaa gtagaaagtg agtcatgcac tagacagtgg gcctagctca tcagtggcta 3780
 aagttgaaaa ggggttggtt tcctgtatat atatgtatgt atatacacac gtacatacat 3840
 tcatatatat acatatatac ataatgtgct taaccactgc cttttaaacc tttaaattaa 3900
 ataaaacatt ggggttgatt c 3921

<210> 1373

<211> 3211

<212> DNA

<213> Homo sapiens

<400> 1373

tccctgggtc tgcggctcca cgaccctcaa accagaacaa tacctctcct ccctgggtcg 60
 ccagcttcct gaccctcgaa ctaaaacaac aatgctcctc cctgggtcag cagctccacg 120
 accctgaaac tagaacaaga cctctcctcc ctgggtcgcc agtttccgga cccttggtact 180
 acaacaaaat ggctcctccc tgggtctgca gctccacgac cctcgaactc gaacaagact 240
 tgtcttcccc aagttgccag ctaccagacc ctggaactac aacaacattg ctccaccctg 300

ggtctgtagc tccacgaccc tcagaccgga tcaagacctc tcctccctgg gtcgccagct 360
tccggaccct caaattacaa caaaattgct cctccctggg tcggcagctc cagcacctc 420
acaatagaac aagacctctc ctccctgggt cgccagcttc cggacccttg aactacaaca 480
aaattgctcc tccctgggtt ggcagctcca cgacctcaa actccaacaa gacttctcct 540
ccccgagttg ccagctgcca gacctcgaa ttacaacaac attgcccctc cctgggtctg 600
cagctccacg acctcagac tagtacaaga cctctccctg ggtcgccagc ttcctgaccg 660
tcgaactaca acaaaattgc tcctccctgg gtctgcagct ccacgacct cagaccagaa 720
caagacctct cctccctggg tcgccagctt tctgacctc gaactataac aacaatgctc 780
ctgccgcagt ctgcagctcc acgacctga aactagaaca agacgtctcc tccctaagtc 840
tccagcttct ggatcctcga attgcaacaa cgttgctcct gcctgggtct tcagctccac 900
aaaaatcaat ctagaacaag acctctcctc cctgggtcgc cagcttcctg acctcgaac 960
tacaacaaaa ttgctcctcc ctgggtcggc agctccacga ccctcaaact ccaacaagac 1020
ctctccctgc atgccagct ttctgacct cgaactacag caacgttct cctgcctggg 1080
tctgcagctc caccaacagc aaactagaac aagacctctc ctccctgggt cgccagcttc 1140
ctgacctcg aataacaaca aaattgctcc tccctgggac agcagctcca tgacctcag 1200
accagaacaa gacctctcct ccctgggtcg ccagcttct gacctcgaa ctacaacaaa 1260
attgctcctc cctgggtctg cagctccacg acctcaaac tcgaacaaga cttctcttcc 1320
ccgggttgcc agctaccgga ccctcgaact acaacaacat tgctcctccc tgggtctgta 1380
gtccacgac cctcagacca gatcaagacc tctcctccct gggtcaccag cttccggacc 1440
cttgaactac aacaaaattg ctctccctg ggatggcagc tccatgacce tcaaactcca 1500
acaacacttc tctccccga gttgccagct gccagaacct cgaattacaa caacattgcc 1560
cctccctggg tctgcagctc cagcacctc agactagtag aagacctctc ctccctgggt 1620
cgccagcttc cagacctcg aactacaaca aaattgctcc tccctgggtc agcagctcca 1680
cgacctcag accacaacaa gacctctcct ccctgggtcg ccagctttct gacctccaa 1740
ctgtaacaat aatgctcctg cctcagtcta cagctccacg acctgaaac tagaacaaga 1800
cgtctcctcc ctaagtctcc agcttccgga tcctcgaatt gcaacaacgt tgctcctgcc 1860
tgggtctgca gctccacgaa catcaacta gaacaagacc tctcctccct gggtcgccag 1920
cttcctgacc ctggaactac aacaaaattg ctctccctg ggtcggtgc tccacaaccc 1980
tgaaactcga acaagacttc tcctccttgg gttgccagct tccggacct caaattacaa 2040

caacattgct cctccctgcg tcggcagctc cagaccctc aaactagaac aagacctctc 2100
 ctccttgat cgccagcttc ctgaccctcg aattacaaca aaattgctcc ttcctgggtc 2160
 ggcagctcca cgaccctcaa actagaacaa gacctctcct ccctgggtcg ccagcttcct 2220
 gaccctcgga ctacaacaaa attgctcctc cctgggtctg cagctccacg accctcaaac 2280
 tcgaacaaga cttctcttcc gccggttgct agctaccgga ctcttgaatt acaacattgc 2340
 tcctctttgg gtctgtagct ccacgacct cagaccagat caagacctct cctccctggg 2400
 tcaccagctt ccagaccctc gaactacaac aaaatagctc ctccctgggt cggcagctcc 2460
 acgaccctca aactccaaca agacttctcc tccccgggtt gccagctgcc ggaccctcga 2520
 attacaacaa cattgctcct ccctgggtct gcagctccac aacctcaga ccagaacaag 2580
 acctctctc cctgggtctc cagcttctg accttcgaat tacaacaaaa ttgtctctac 2640
 ctggtttggc agctccacga ccctgaaact agaacaagac ctctcctccc tgggtcgtca 2700
 gctttctgac cctcgaacta cagcaatgtt gcttctgcct gggctcgcgc tccacgacct 2760
 tcaaactaga acagcagcac cagctgcttc ctggacttcc agctcaatga ctgcagact 2820
 tcaaaggcag caacggctcc acccccaggc tccatctcca acacctcag atctgagcag 2880
 cggcagcacc agctccttc tgggtcttct gtttcacgat ccttaaatta gaacagcagc 2940
 accatcttct ccctgggtct ccagctccac gaaactcaag ctagaatagc agcaccggct 3000
 cctctgggat cttcagctcc acgaccctaa gacatcagtg gcagcaccgg ctctccct 3060
 ggactccagc tccaggacct tcaaacttga acagaaacac cagctcctcc ccaggcctcc 3120
 agctccttga ccctcataaa caatcccttc tcatgaaatg tagcagtcag gaaaactgta 3180
 gaggaagtaa ataaataaat gtttccctt c 3211

<210> 1374

<211> 4427

<212> DNA

<213> Homo sapiens

<400> 1374

aaatggattt tgggtgtgata tcagttggta gtactgtccc tggcaaacag acgcataact 60

gtgcattgtt ctttgggatt ttgagagcct tcattctcaat ttcaacttta aagcagctta 120
atctttaagg aacatatctc tgatctgggt aatttgtaga acttaatttg agggtcatta 180
catgtgagga tagcaggagt tgaagatgcc aaggacctga agggctactg gagggacagg 240
tgaagtgatt tgaagatgta gcattttgaa tctctttctg gcccatectc tgcttcacac 300
cagaatcatt gtgacctgta gacctgcaaa acaaaggacc aaaggtttagc atgcagaagt 360
gaaagtgtca ataataacca aaccactcca tcaagttagg tctggggaaa agcagcagca 420
aaaatgagtt cttacttctg ggcacaaaat gaaagtaaca gacctgattt actctgcggg 480
cagccagctg actaccttgt tgaagagaaa catttcacaa cgcttgtatg cttcattgtt 540
gttttgggag ggcttttgaa gatgtgttta aagaattgtg aagtcattgt tttgacgatt 600
ctttctctat caggattcgt gataggacac atggcctaca attctgttga ggtgcaccaa 660
attgtctacc ctcttctaag aacatcaagt ttttactttt attcttactt ttcaccttta 720
attatattta tggttgcttt ggatgtagaa ttttatacac tcaagaaaat gttttggcag 780
gtcttgtaa ctggattaat tagcttttct acagcaagca tcataattgg atatgtcgtt 840
ataaaattca ataaagattc atgggatttg caatcttgcc tactctttag catcacctt 900
ggcattatag atcctcttcg ttctgtgaat tcaactaaaa ctattggcat ttctaaaata 960
tacattgatc tcattagagg agaatcattg atcatttgta gcatcgcac aatttttttt 1020
ggaaattttc ggggcaacag aatccacttt tctattttta gagatttaca tgtaggcatt 1080
gaactcagct atgacatttt gggaagcata atatttggat attggtgtgc aaaaatcatt 1140
cagtgtatat tggctgacgt ttttagcaat atgctgacta atatcattct ctgcttttca 1200
atggtgtaca tgactttcta tattgtggaa tttttaggaa tgtcaggcac tcttgccetta 1260
gccgctgtag gactgaattt agattcttta acttttaaac cgaagatcga acttgtaatt 1320
actaagttct taagaatttt ttcattctgta tatgaacatt taatatatgc tttctttggc 1380
attgtgattg gatgtggaga actcagccac tatgaatttc aactataacc tttcatattc 1440
attttattta caacagtga tttggtaagg ttgcttacta ttttgttagt gagccctatt 1500
ttgatgcatt caaattatga atataattgg cgatggggag ttgtaatcac gtggtctgga 1560
attaaaggag tttttaattt actctgggct cctgatgttt ataatctcgc tgaacgaaaa 1620
gtggaagtac cacaaatgtt tatactctat gtacaagtaa tatcattatt gacaatggga 1680
ataaattcat acgtgatgac tcagtcagcc aggaagttag atttgtgtgt tctttccctc 1740
ccaagacaaa tgatcttgca aaatgccact cagcacatac aggagatagt acagaacaca 1800

ataactttat ttaaaacaga aaaaattttg acaaagtta actggacctt agtagaagat 1860
aaaacgagga tcgaatacat tcctttttcc cacgtttcac ataatgatat gaagacagaa 1920
tccacaacag atgaagcttt aatggaggaa gccagattgc atgtagctgc aatacaaatg 1980
agtagctttg aaaaacagcg taacaatgga attcttgaaa tagaggcagc ccg gatatta 2040
attggtgcag caaaatgcta ttactccatc caaggaaaat tcatgagtat ttatgatgtt 2100
tcaacttata tgagaactag aagttggctt ataaagtta aaaatgtttt aactttcttg 2160
gaatattgta tagaaaaggt acattttatt ccacctgaga gtaatacatt tctgactttt 2220
atatttcaca tagtattttc tgaagaattt gaatatacag gacagattat aaatttgata 2280
tatatttatc ctatgataat acatctgtgg ccaatggcaa gaggtttaaa tgtatcagca 2340
ctgatatcaa taaactacta ttttatgttt ttatatgtat tagaatcaac attgaagata 2400
ataattttga aaaggaaata ttttcaacaa tgttggaaata ctttggaaatt tttatcctg 2460
gttattggaa tcattgatat cttttgtgta tactttgtga aattgagacc agacaacttg 2520
gctcttatac agcttacagt aataatggga tatttaagaa taattaggtt tcttcctctc 2580
ttcaagataa tagtaccaat actgataaga attgcagatg tgcagatcaa aaagcgcctc 2640
agcttgatgt atagtattac aaaaggctat atcaaaagtc aagaagatgc caaacttcta 2700
ataaaacaaa tagctgtctg tgaatcaata tatcagaaac tatgtgaaat tttggaaacc 2760
aacaacagg atgctgtcaa agaattagta ctcattggagc atgagggtcg tgatgttgtc 2820
attgctttga agactaaaca ggcaatccgg aatgtgattg cttaaagctct aaaaaatctc 2880
accttccttt gttcaagagg cattattgat aagcatgaag tcattgagat aaataaggta 2940
cttcttaaaa aattaaaagc actaaataac tttccaaagg caatcccacc cccaactcct 3000
gacatatacc ttcacaacat catttggtcg gaaggtaaag atgttctcat tgacttcttc 3060
aaggaaagag ccaaacttgc ctgttttgac tctggagata ccatttgtaa aggaggtgaa 3120
atgccacaag gaatctactt aattatttca ggaatggcaa ttttgcatag tttatctcct 3180
acctttggaa tagagagtaa tcaaagggtg gatagagggt ccagagacat gtttacagag 3240
ttctgtacta ctggggacat aattggagag ctaagctgtc tgcttaagcg tgaaattgaa 3300
tataccgtca tctgtgaaac tagtttacag gcctgcttta tctccctgga ggatttatat 3360
gaaggctttg atgccttctg gccatctctg gaatataaaa tatggctaaa gcttgctctc 3420
agtactgcct atcagtattt tgaatcaagt cttattgatg aggacttaag gtttcagaac 3480
tgtgtgatgt tcaatcaagc atatgtggaa actttatcaa gctatagtga catgattatt 3540

gataatatga ccatgaaatt tgttatcatt gtgtatggca gtgtaattga tactaagaca 3600
 gaggaaccat attttgcacc ttgcattata cctacaacct gtgagcaggt tcagggaact 3660
 tctgatttaa gcaagctgct gataatccaa gcatctgagc ttacccaaag aaatagtaac 3720
 accaatgtca tggcctcagt caacacggtc tttgaacaac caggaaagaa tataaatgga 3780
 agacaaaaga tgagttgaaa actggatacc attttagaaa agggtattaa tgatacaaat 3840
 atgatgtgtg gagtcaggtt aaagaccaa ctactttcct cgctcaaata ctaaaggatt 3900
 atctgcaagg agtttactta gaagctactg aaacagggtta ctgctgcatt tagtttataa 3960
 gcaatggatg gacttctgta aaactttctta attttaagta gttgcattat atttgggatg 4020
 ttaaaaaagt cttcaggata atataaaata cactgaaaca tatgtcctac caaatgaaac 4080
 cctgtttcca gctaagagca aattttaaca tagtgcatta taaaaagtgt tgtataactg 4140
 atatgttact ctctaaagca tagaacctgt aattttcatt tgtgaaattg ttataattag 4200
 tgcctcccta atattttccc gagtatagct attctcccct tcccagtttg gtaaattattg 4260
 aaaaacagaa ttatattcca caatcttagt aactttcagt aagtaagtaa cttttgcttt 4320
 cagtgaatt taggagaaat taatattctc atattgcata gtactgtttg atgtcacctt 4380
 tcattttatt tttaaaaatc aaataaagtt gagttttatg gttgtct 4427

<210> 1375

<211> 3619

<212> DNA

<213> Homo sapiens

<400> 1375

actgtccagt agttggaggt cacacagccc cttgccttat tctcaaacc taaccacatg 60
 gctggatatt cctgaaatgc attcctaaac ctctgctgct gagaataatt ggacctgcc 120
 tctattccca gttaaactgc cctgtatacc aaacaaatcc aattcaagcc aacaggcaaa 180
 gtataggctc agacagagcc catcctatgt gcaaggcgggt gagcaggggt ggaaaatctc 240
 actgtgactc atccagctga tttctggagc acactagggtg atgccctca cttggcaccc 300
 gtgttggcgc tggcatcatg gacaatagaa acaccagat gtacacggag ggtagaacca 360

aggctccagg gacgcagcca agtcctggcc tgaggatcac cataaagagg gctggtgttg 420
agcccatcat accaggagtc agcaaggtca tgtttccgga tgcttcggaa gtgggcagca 480
agaagcacct ctcatcagct tcacgagggc cagagaaggg gccagactc agagatgcat 540
ttgagaaggg gccttcagag ctccagaatcc aggagcaggg gcctccagca agaccaggga 600
agaaacagcc ctcttgggtc cccaggaag ggtcccagga gctgcaagca ggccaggatc 660
agagtgagct ggggttgctg ccttcctggg ttcctgaagt acctgaaggg ctgcagcagc 720
tgggctccgg aaaggagatc aaggggccagc aggggaggca acggaaccgg ggaatcgggg 780
aggatcagcc tcctgagagc tgccagggtc ccgatatca atccacccc agtcaccagg 840
cagacatggt gcagccagca gagccttgct gccgcttggc cagccatggc cagccactgg 900
gaggcaagca cccaaggag gcaggtgtcc cacacatcag gccacaggag gctccgccag 960
agcccagccc agggggacat ggggacagct ctccaggaagc aatgccccca atgtccgtcg 1020
tggctccaga ggaaaagaca gtcaaccctt tcctgccatc cacgcctgga cctaaaaaag 1080
caaaaggagg gagggcagac aacaggcatg aacaaagcca agtgggtggga ccaggagtaa 1140
ctcactcaag accatggctc agccgggagc ggtggaacac gcttgatc cagcacttt 1200
gggaggccaa ggcggaggat cacttgagga ggtgaggagc attggagaga ggcgggagcc 1260
agaccgtgag cagcagcagc ctccagaagc cgcggtggct gcaggagacac agagcctcgg 1320
gaacttccgg cagggttcca tgaagtgtt gctggagggt gagaaaatgg aggcctccca 1380
tcggagagcc tcgaaggccc ggtcccagac agcccagaag tcgcccagga ccctgacccc 1440
ggtgcccacc tcagctccaa gcctgcctca gaccctgcc tcggtccctg ccagcggccc 1500
atcgtgggcc cggctgccag ctcttgggcc agaacctgcc cccatgggag ccccggtccc 1560
cacctccatg ccttgccctg tctgtctggg ccctgccctg gacctgggct ggagaaggat 1620
ggaactcttg caccggagca gcgagagaac cctgagctac gccaaggcgc ggcaggagcc 1680
ggaagagcag agcctccaaa agctttatca aaaccgggag aagtccgagg agcaactgac 1740
cctgaagcaa gaggaagtag agacagtttc accatgttgg ccaggctggt ctccgaactcc 1800
tgaactcaag tgatccaccc acctcagcct cccaaagtct ggaattacag gcgtgagcca 1860
ccgcggccag cctcgtgcta ggtcttctga ctccgaagtcc agcgtctctc ctgtgccaga 1920
gctgcctctc tgagagaatg acagatgccc tgcacagtgc tttagccttc cgcagctact 1980
ttgagatctt caatggctct ggtgagggtg atgcacagag cctgaagaat atcctgctcc 2040
taatgggctt ctctgtgacg ctggcccagg tggaggacgc cctgatgagt gctgatgtca 2100

atggagatgg tcgtgtggac ttcaaagact tcttggctgt gatgacagac accaggcgct 2160
tcttctgctc tgtggaacag aacgccctgt cggacatggc tccccacaat cccacactc 2220
tactctttga gacctgtcc ctgctggtag agatgctggc cttaccagag gcagtcttag 2280
aggaaatcac aaactactac cagaaaaagc tgaaggaagg cacctgcaag gcccaggaga 2340
tggaagcggc cgtaggccgg ctgcggttgc agaagcttcc ctacaacccc cagcaagaag 2400
agagctcaga agttccagaa cgaaaggctc tcagtatcct gagccggctg aagcagcaga 2460
actatggcag ccaggccaag ggagctgaga ggccagtttc ccacttcggg cttactgtg 2520
tacatcagaa aacaggctga taatcactat ttccatcca ggcctatgac aatggcctcc 2580
tgcgttggac tctccctc ctgccttagc ctgagcacag ctcccaacct gcagagcccc 2640
tatgccagg tgcctgcat cctgctctgc ccacagctgg acaagaagat ggtccgtagg 2700
cagccgagca accactatgc actagaccag tgcacacccc ctggcctgga tctgacatc 2760
cgcagcccc tctccagtc aggatctcaa ggaaacaggg aaccaacgag ggagtgagcc 2820
tgtgagactc agcttgccac cttggccacc acgtgctgcc ctcatcaca aaaccacacc 2880
aaccactccg aaacgtatct gctggtcagg agcagggagg ctgtctggct ggctgaggga 2940
taaggcgcag tgcaacggaa gggatcagga agcctgagag gagccaggaa atgtaccagg 3000
tatagttact gagctggggc caccaatgga gatggagcac tgcagacccc taagagttca 3060
agccatgctg gagtgggaag acctatccac cttctgaaca tacgaggcag aaggctcaga 3120
gtcctggagg cagactctct cctggttttc cttgtgctga tggcaaaata ctaaacaagt 3180
cttctctccg tcaattctaa gccagggat gcaatctcac tccctggcac tctgctttct 3240
tctagaagta gtaagcctgg ctggtaggga accaccctga ggggtatggg aaggggaagt 3300
cggttcactt tccctatctc caaaataact agaggtgggg ttggcacct cccaggtc 3360
tccgagccta cagagctagc ccagtctcca ggcaaggccc agatgccctg ggacttagct 3420
cggggaggga ggtataggca tggggtgctc gtctgtcctg gcggctgcag agccctgccc 3480
cttttctggg cggcagtagg aatacagaag ctaagctcac caaaatccta ttggttaatg 3540
tttctagtga atttccaga aacattttta agtagactac caaactacc tttcttaatt 3600
aaaaattcat taaaccact 3619

<210> 1376

<211> 4653

<212> DNA

<213> Homo sapiens

<400> 1376

```
aaaaaaagac acagttaaca ggcaagcagc catcttatct cctgtctgag ccactctttc 60
ttccactttt gtcacccttt caagtcacta ccgagcaggc tgagcagatg cacttatcca 120
agatgagtag aatgcaattt gcgtgggagc aggggacaag cccatgaatg agtatcgctc 180
cgttgtgtac tatcaagtca aacagccacg ctggatggaa acagtcaagg tggctgtccc 240
tattgaagac atgcagagga tccatctgcg attcatgttt cgacatcggc catctctgga 300
atggggacag caagaagatg gaggatgcc a gcgcatacct gacccttcct tcttatcgac 360
accatgtgga aaacaagggg gccacgctga gcaggagctc cagcagtgtt ggggggcttt 420
ctgtcagctc ccgggatgtg ttctccattt ccaccctggc gtgctccaca aagctcactc 480
agaatgtggg cttgctgggt ttgctgaagt ggcgtatgaa gcctcaactg ctacaggaga 540
atttagaaaa gttgaagatt gtggatggag aggaagtggc gaagtttctc caggatactc 600
tggaatgccct cttcaacatc atgatggagc attctcaaag tgatgaatat gacatcctcg 660
tctttgatgc cttgatttac ataataggac tcattgcaga ccggaaattt cagcatttca 720
acaccgttct ggaggcttac atccaacagc atttcagtgc gaccttggct tacaagaaat 780
tgatgacagt gctgaagact tacttggata cctccagcag aggggagcaa tgtgagccaa 840
tcctaagaac gctgaaggct ttggaatatg tgttcaagtt cattgttcgg tcgaggacat 900
tattttcaca gctttatgaa ggcaaagaac agatggagtt tgaagaatcc atgagacggc 960
tctttgaatc catcaacaat ctgatgaaaa gtcaatacaa aactaccatc cttttgcagg 1020
tggcggcttt gaaatacatc ccatctgtcc tgcatgatgt agaaatggc tttgatgcga 1080
agtactcag ccaactcctg tatgagttct acacctgcat cctcctgtg aaactccaga 1140
agcagaaagt acagtctatg aatgagatag tccagagcaa cctctttaaa aagcaagaat 1200
gccgggacat tctgcttcct gtcacacca aagagctgaa ggagctgctg gagcagaagg 1260
atgacatgca acaccaggct ctggagagga agtactgcgt tgaattgctc aacagcatct 1320
tggaagtcct tagctaccag gatgcggcct tcacctacca ccatatccaa gagatcatgg 1380
tccagctgct gcggacagtg aaccggacag tcatcaccat gggccgggat cactctgatt 1440
```

agtcactttg tggcatgtat gacagccatc ttaaaccaga tgggtgacca gcactactcc 1500
ttctacattg agaccttcca gaccagctct gaacttgtgg acttcttgat ggagaccttc 1560
atcatgttca aggacctcat tggaaagaac gtgtaccctg gagactggat ggccatgagc 1620
atggttcaaa acagggtctt cctgagagct atcaacaagt ttgcagaaac catgaaccag 1680
aagttcctag aacacacgaa ctttgagttc cagctgtgga acaactatct tcatctggca 1740
gtggctttta tcaccagga ttctctgcag ctggagcagt tctcacacgc caaatacaac 1800
aaaatcctga ataagtatgg ggacatgaga cggctaattg gcttctccat ccgtgatatg 1860
tggtacaagc ttggtcagaa caaaatctgc ttcaccccag gcatggtagg acctatatta 1920
gagatgacac ttatccctga ggctgagctc cggaaagcca ccataccaat cttcttcgac 1980
atgatgttgt gtgaatatca aagaagtggg gatttcaaaa agtttgaaaa cgaaatcatc 2040
ctgaagctgg accacgaggt agaagggggc cgaggcgacg agcagtacat gcagctcctg 2100
gagtcaatcc tgatggaatg tgctgcagag cacccaacca ttgccaagtc ggtggagAAC 2160
ttcgtgaacc tgggtcaaagg cctcctggag aagctgctgg attaccgggg tgtgatgaca 2220
gatgagagca aagacaaccg catgagctgc accgtgaacc tgctgaattt ctacaaagat 2280
aacaacaggg aggagatgta cataaggtac ctgtacaaac tccgcgatct tcacctggac 2340
tgtgacaatt acacagaggc tgcctacacg ctccttctcc acacctggct tctcaagtgg 2400
tcggatgagc agtgtgcac acaggtcatg cagacaggcc agcagcacc ccagacacac 2460
cggcagctga aggagacgct ctacgagacc atcataggct actttgacaa aggaaagatg 2520
tgggaagagg ccataagtct gtgcaaggag ctggcggaac agtacgagat ggagatcttt 2580
gactatgagc tgctcagcca gaacctgac cagcaggcaa aattctatga aagcatcatg 2640
aaaatcctca ggcccaaacc agactacttt gctgttggat actacggcca gggattcccc 2700
tccttctgc ggaacaaagt gttcatctac cgcggaagg aatatgagcg aagagaagat 2760
ttccagatgc agctgatgac ccagttcccc aatgcagaga agatgaacac cacctctgcc 2820
ccgggagatg atgtgaagaa tgccccaggc cagtatatcc agtgcttcac tgtccagcct 2880
gtcttggatg aacatcccag gttcaagaat aagccagtgc ctgaccagat tataaacttc 2940
tacaaatcca actacgtgca aaggttccac tactcccggc ccgtgcgag ggggaccgta 3000
gaccagaga atgagtttgc ttccatgtgg attgagagaa cctccttcgt gactgcatac 3060
aagctgccgg ggatcctgag ctggtttgag gtggtgcaca tgctgcagac cacaattagt 3120
cctctggaga atgcataga aacctgtcc acggccaatg agaagatcct gatgatgata 3180

aaccagtacc agagtgatga gaccctcccc atcaaccac tctccatgct cctgaacggg 3240
attgtggacc ctgctgtcat gggaggcttc gccaaagtatg agaaggcctt cttcactgaa 3300
gagtatgtca gggaccaccc tgaggaccag gacaagctga cccacctcaa ggacctgatt 3360
gcatggcaga tcccccttctt gggagctggg attaagatcc atgagaaaag ggtgtcagat 3420
aacttgcgac ccttccatga ccggatggag gaatgtttca agaacctgaa aatgaaggtg 3480
gagaaggagt acggtgtccg agagatgcct gactttgacg acaggagagt gggccgcccc 3540
agggtctatgc tgcgctcata cagacagatg tccatcatct ctctggcttc catgaattct 3600
gactgcagca cccccagcaa gcctacctca gagagctttg acctggaatt agcatcacc 3660
aagacgccga gagtggagca ggaggaaccg atctccccgg ggagcacct gcctgaggtc 3720
aagctgcgga ggtccaagaa gaggacaaag agaagcagcg tagtttttgc ggatgagaaa 3780
gcagctgcag agtcggacct gaagcggtct tccaggaagc atgagttcat gagtgcacc 3840
aacctctcgg agcatgcggc catccccctc aaggcgctctg tcctctctca aatgagcttt 3900
gccagccagt ccatgcctac cateccagcc ctggcgctct cagtggcagg catccctggg 3960
ttggatgagg ccaacacatc tccccgcctc agccagacct tcctccaact ctcagatggt 4020
gacaagaaga cactcacacg gaagaaggtc aatcagttct tcaagacaat gctggccagc 4080
aaatcggctg aagaaggcaa acagatccca gactcgctgt ccacggacct gtgagctgct 4140
gctgactagg gctgcatggg agagccaggg aggggagttt ctggaagagg aaagccatgc 4200
gtggaacatc gaagcctcag agagtgggag actgtcccca tcagttgtcc ttacttagag 4260
gagacagaga ggccaatcag gtcccagagc tggagtgtca acaagcccag catcccctgg 4320
ggctgtgatc atggtggatg aggaagcctc aacgtagatt cctgaactca aggtaccagc 4380
aagaatgcct tctcccagtg tgctctcccc aacatcctag gcacagcttt cataaccag 4440
tttcttaggt gtaagaaact gcttttatct catttattaa gtctcagaac ttaacagaaa 4500
aggaagcctt ttaaatttc tttttaattt tatttttagat taacagtttt gtactttaca 4560
tttttttata caaccaacca gtttcttttc tagccaatca tctctgaaga gttgctgttt 4620
cttactgaca ataaaaatg ttctcttggt tcg 4653

<210> 1377

<211> 4459

<212> DNA

<213> Homo sapiens

<400> 1377

atttctaatac	aaacaccaac	aagaagtga	gatttatatt	cccatcatgc	ttacacccaa	60
atttctggca	tttcctcatc	atcctatggg	aatgttatat	cgttataaag	tacaggtaga	120
gggtggcagt	ggcaacttta	cctggacttc	ttctaataga	acagtgggtca	tagtaaccac	180
gaaaggagt	gtgactgcag	gtcagggtcag	ggggaatagt	actgttttgg	cccagatgt	240
acaaaatccc	tttcgatatg	gagaaattaa	gatacatgtc	ctgaaactga	acaaaatgga	300
actgttacca	tttcatgctg	atgtggagat	tggccagatt	atagaaatac	ccattgcaat	360
gtatcacata	aataaagaga	caaagaagc	catggcattc	acagactgct	ctcatttatac	420
cttggatctg	aacatggata	aacaaggagt	ctttactctt	ctcaaagaag	gtattcaaag	480
acctggacca	atgcattgtt	ccagtacaca	tatcgcagct	aaatctcttg	gccatactct	540
ggtaacagta	agtgtgaatg	aatgtgacaa	gtacttggag	agcagtgtca	catttgctgc	600
ttatgaaccc	ctaaaggctt	taaatcctgt	ggaagtggca	ttggtgacat	ggcagtctgt	660
gaaggaaatg	gtatttgaag	ggggtcctcg	tccatggatc	ttggagccct	cccggttttt	720
tttggaattg	aatgcggaga	agacagagaa	gattggaata	gcacaagtgt	ggctgccatc	780
taagagaaaa	cagaaccagt	acatctaccg	gatccaatgc	ctggatttag	gggaacaagt	840
tctcacattc	cgaattggaa	atcatccagg	tgtcctgaac	cctagtccag	ctgtagaggt	900
tttgcagggt	cgcttcattt	gtgcccaccc	tgccagtatg	tcagtaactc	cagtatacaa	960
ggtgccagct	ggtgcccagc	catgtcctct	gccacagcac	aacaaatggc	tgattcctgt	1020
atcaagactg	aggacacag	tcctggaact	agcagtgttt	gatcaacata	ggagaaagtt	1080
tgataatttc	agttcattaa	tgctagaatg	gaaatcctcc	aatgaaacac	tagccccattt	1140
cgaagattat	aatcagtgg	aaatggtagc	aaaagatgat	ggcagtgggc	agacccggtt	1200
acatggtcac	cagatcctta	aagtacatca	gataaaaggg	actgtactga	ttggagtcaa	1260
ttttgtgggc	tattcagaga	agaaaagccc	aaaagaaatt	tccaacttgc	ccagatctgt	1320
agatgtggaa	ctgctcctgg	taggtgatgt	aactgtatgt	cctgagaatg	ccaccatcta	1380
taaccaccct	gatgtaaagg	aaacatttag	ccttgtggaa	ggatctgggt	atTTTTtagt	1440
caacagcagt	gagcagggtg	ttgtcaccat	cattacatg	gaagcagaaa	gctctgttga	1500

gtagttcca ttacatcctg gattttttac cttaggaggtc tatgatcttt gtttggcttt 1560
cttgggtcca gcaacagccc acctcagggt gtcagacata caagagctgg agcttgatct 1620
gattgataag gttgaaatag acaaaactgt gttagtact gtgaagggtc ttggctcttc 1680
caaacgccc ttccaaaata aatacttcag aaacatggaa ctcaaactgc agttggcttc 1740
tgccattgtc accctgacac caatggagca acaggacgaa tactctgaaa attatattct 1800
tcgagctacc actattgggc aaaccacact tgtggctatt gccaaggaca agatgggaag 1860
aaaatacaca tcaactcctc ggcacattga agtgtttcct ccattcagac ttcttccaga 1920
gaaaatgaca ctgattccaa tgaacatgat gcaggtaatg tctgaagggtg gccccagcc 1980
ccaatccatc gttcacttct ccatcagtaa tcagaccgtg gctgttggtta ataggagggg 2040
gcaagttaca gggaagattg ttggcacagc tgtggttcat ggcaccatcc agacagtaaa 2100
tgaagatact ggcaaagtca ttgtgttttc tcaggatgaa gtacagattg aagtgtttca 2160
gctaaggggt gttaggatcc ttgcagctgc aactcggctc atcacagcta ccaagatgcc 2220
agtttatgtc atgggagtaa ccagtaccca gaccctttc tccttcagca atgctaatacc 2280
tgggctcaca ttccactggc ctatgagcaa aagggatgta ttggatctag tgcccaggca 2340
ttcagagggt tttctacagc tcccagtaga gcataacttt gccatgggtg tccatacaaa 2400
agcagcaggc aggaccagta tcaagggtcac tgttactgc atgaacagtt cctctgggca 2460
gtttgagggg aatttgttgg aactctctga tgaagtacag atcctggtgt ttgaaaaact 2520
ccaactcttc tatccagagt gccaacaga gcagattctg atgcctataa attctcagct 2580
caaactccat accaacaggg aaggagctgc ctctgtgagt tctcgtgttc tcaagtgttt 2640
ccctaattca tccgtcattg aggaggatgg tgaagggtc ctgaaagctg gttccattgc 2700
aggtactgct gtattggaag tcaattctat agaaccttt ggagtcaacc aaacaacat 2760
aactggggtc caggtagcac cggtgacata cctgcgagtg agcagccaac ccaagctata 2820
cacagcccaa ggaaggacc tgtcagcatt tcccttgggc atgtctctta ctttactgt 2880
tcagttttat aatagtatcg gagagaaatt ccacacacac aataccagc tttatctggc 2940
tctgaacaga gatgacttgc tgcataattg accagggaat aagaactata cttacatggc 3000
ccaggctgtg aacagagggc tgacacttgt ggggctttgg gaccggagac atccaggcat 3060
ggcagattat attcctgttg ctgtagagca tgccattgag ccagacacca agcttacctt 3120
tgttggagat atcatctgct tcagtactca ccttgtcagc cagcatggtg aacctgggat 3180
atggatgatt tctgccaaca atattctaca gacagacatt gtcactggag taggagtggc 3240

caggagtccg gggactgcaa tgatttttca tgacatccca ggagtagtga aaacatatcg 3300
agaggtggtg gtcaatgcat catcaagatt aatgctcagt tatgacctca agacttatct 3360
caccaatacc ctcaattcaa ctgtattcaa gctcttcac accactggca gaaatggtgt 3420
caatcttaaa ggattctgta ccccaaacca ggccttggcc attacaaaag tacttcttcc 3480
agcgaccctc atgctgtgcc atgtacagtt cagtaatact ttgctagaca ttccagcaag 3540
taaagtcttt caggtccatt cagatttcag tatggagaaa ggggtttatg tctgcataat 3600
caaggttcga ccgcagtcag aggagctgct acaggccctc agtgtggctg acacctcagt 3660
ctatgggtgg gctacactgg tcagtgaacg tagcaagaat ggaatgcgac gaatcctcat 3720
tcctttcacc ccagcctttt atattaacca gtcagaattg gttcttagcc acaacaaga 3780
tatcggggag ataagagtac tgggagtggg cagagttctt aggaagctag aggtcatctc 3840
cagctcccca gttctagtgg tcgctggcca tagccactct cccctcactc ctggcctggc 3900
catttactct gtaagagtgg tcaacttcac ttccttcag caaatggcat cacctgtttt 3960
catcaatatt tcctgtgtac tcaccagtca aagtgaggca gtggtagtga gggctatgaa 4020
agataagttg ggtgcagatc actgtgaaga ttccgccatc ctcaagcggg tcaactggctc 4080
ttaccagatc ctgctcttga ccctctttgc agtgctggca tcaacagctt ccatcttctt 4140
agcatacaat gccttcctaa acaagataca aacagttcca gttgtgtatg taccaactct 4200
aggaacacca cagccagggt tttttaactc cacaagttct cccctcact tcatgagtct 4260
acaacctcca ttggcccaaa gtcggctgca acattgggta tggagtataa ggcactaacc 4320
tctgcttggg caagtttctc ttaactgcag gggaatgaag atttctagtc ctcgacaaga 4380
agcctaacag caacttctac attaagtttc cagataaggc ttctgagaac tataaataaa 4440
gcatacctaag ctgtttctt 4459

<210> 1378

<211> 3590

<212> DNA

<213> Homo sapiens

<400> 1378

ctaggaaaga gagaaaagag ggtttgggtt cacacggatg ctgttttggt ctctctatcg 60
tgttccaaca aggaatccaa ttccagggtcc agatgatgcg cagaataagc agtgagctct 120
tcagggccac tgagttttat gaaatgtttt ggtgaaagtg gattttacta ttcccgggtt 180
gaagattgtc ttggtggcct tcaactgtga gtgacgggtga atcaagctgt ggacgtggca 240
tgcaggtttt acatggccat cagttttcaa atcagtggga tcagtctctg agaatcttct 300
gggacatgtg gcacgagtcc accgagtttc gtgcagagcc gcccaacggg tcccaaagg 360
ggctgtgccc tgtcgcattc ccacctggca gggacaaagg tccccgggac cgcacatcgt 420
ctcggcattht ggtgtcgtca gtgtggcttg ggaaggctcc cgagcccctc atcctgccgc 480
cctcccgtag gttactgaac tttccaccat ttctcatgat tttgttcatt gctctctgtc 540
tcctcgggag ccacctgggc tccggcccca catatcccag ccaggcccag ggcttgcaac 600
caggaaggca ctcagtctat tgtgctagct gctccctggg cctggaaagc ttttggtagc 660
tctgtcacc cctcctgggtg acccctgcct ctgctctggt gaagctcca tccctctggt 720
tcacgccatc tccccagggc tctccagccc tgcaagcctt aattgacact gcattgtggc 780
caaaacatca tgtggtttct tagtgtatgg ctgacatcca ggttgatctg gtggaagttc 840
cagggggggac ctctttcccc tcatcttcat gacctccagg gcagggccag gaagaggaag 900
cagcctctga acagagagaa gactggctgc cccacacggc agtcgtccac aggagcccg 960
gaaggaaaagg aaaggaaaga aggaaaggaa aaaggaaagg aaaggacagg aggaaggaag 1020
gaaggaaaga aggttggttt cttctgcag aaagctctc ctctggcttg gttccttaca 1080
atccaactag tcctggagct cagctcacct ttggtgctgg catcacctc tctgccagg 1140
atgtccgcct gaccatgccc cctccacctt caaccaggc tctgcgttcc ctccagctgg 1200
aggcttgggc tctcaacaca gcctggcctg tttgtcctcc tctggctgac ttcggaaggg 1260
tcatacctcg tatttccacc agttctcggc cttcacctt tgcacatcca ggaagtgtga 1320
ccacacttgg ccccatctt atggagaatg cctttataca cgctgtctat caacttggga 1380
cagaacactc tgaagaaaca gggctctgggg cagccccagg gaggatcgga gcctgaggat 1440
tctggaagtc tccagtctct gacttggttg tttttcaggg gatgtgcggt ttacctagga 1500
ccaggcctcc ctcccacgat tcagagttat gaattctcat cttgacctat tcttctctc 1560
ggtttgccag ggggtgtccc tatccctgag atagtcctgg ctcatgccct ggcacacac 1620
tgtctccagc aagttgaggt ttgcagggac aaacaggaaa gctggtgacc agacctgctg 1680
tccagggtga ggacagtgtg tcaccacccc tctgagaggc aggcagtgcc aggaccagc 1740

catgggagcc catccccctg actctgtaga gagcggtcac gggggccctc cctcccatg 1800
tcacctcctt gccactccta tatccctgcc cgtcttgaag catctggagc cttttctctg 1860
tgcctctcat ctctgacgt ctttgcgtgc aactatgacc agaagttagc ggagctacca 1920
aggcttcctg aagcagcctt tggatgctgt atcctgggct ccgaggccct gacgggactg 1980
aaccacaaaa agaaccagga aagggcaggc cccggggact gagaccctct gactgaacag 2040
gcgtctgtga cctggcctca cgacctggga catgccgtcc tcaggccaca gacactggac 2100
tttgggtcaag tactagcctc caggtgggggt cctgggtgaa gcagacagca acccccagagc 2160
cgtgactgcg gttctcagtt tggagtttgg tcaaacaacc aatggggaca gagtcttggg 2220
gtcaggtcca gcaggaactg ccaccctcc cagggacagc ctgtctctcc cactcaccat 2280
cgctggtgcc cacgggctgc tgaccacctg ccaagtcctc ctgtccctgg accagcctct 2340
caggcagcag gtcttacctt tgcctccagg gcactgatcg atggcagctt tgtctcactg 2400
taaggcaacc cagacagagc tgagggcctg tgctgggccg ggagctgtcc tcctccttcc 2460
ctagcagtcc tagggaagga ccagccgtgt ctctccccac cccaccctg gtcttagccc 2520
aggagacaca caggaaggt aggaagaggg tctccctgtg ggctgacgcc tgtgaaggga 2580
caggacctgg gagaagaggg gtgtgtgggt ggggcaggga ccactagggc cctgtagagc 2640
atgggcttgg gctacacaac agggctgccc ctctgggct agaggcagtg ccctctgcag 2700
gagctgagaa tgtccagtcc tgagaaagga cgtgtatggc ccagggtggg tgactgggcc 2760
ccaaaagcag tcctcgaggg agtgaccaca ttaccaggcc aggatcctga gacctgccc 2820
gtgcactgag ggtgcacctg gggcctgtcc cacctgatgt cccaagtgc cccgaaggt 2880
ctgatctctc agcctccatc tacctcccc ggggggtggg ggcttgcttt gagctgtccc 2940
cacctttctg gatagaacta atgtacttct tacatatatt gattgatgtc tcatgtctcc 3000
ttaaagtga taaaagcaag ctgtgggcca ggcgagtggt ctcacgcctg taatcccagc 3060
actgtgggag gccgaggctg gtggatcacg aggtcaggag atcgagacca tcctggctaa 3120
cacatagaaa ctccatctct actaaaaagt acaaaaaatt agccaggcgt ggtggcgggc 3180
gcctgtagtc ccagctacct gggaggctga ggcaggacaa tgggtgtgaac ccgggagggtg 3240
gagcttgtag tgagccgaga tcgcaccact gcactccagc ctgggcgaca gagcgagacg 3300
ccgtctcaaa aaaaaaaaaa aaaaaattat ctgggcatgg tgggtgggtgc ctgtaatccc 3360
agcctttcag gaggctgagg catgacaatt gcttgagtct gggaggcaga ggttgtagtg 3420
aactgagatc gcgccactgc actccagccc ggggtgatagt gtgagacgcc gtctcaaaaa 3480

aaaaaaaaa aagcaagctg tgtcccaacc accttgggca catgtcgtca ggacttcctg 3540
agaccatcac ggggtgcatcc tcaaccttgg caaaataaac tttctaaatt 3590

<210> 1379

<211> 3644

<212> DNA

<213> Homo sapiens

<400> 1379

aggcggggct ggctgttga ggaatgtgcg aggatctccg tggccggtgt ctgaagtcgt 60
cagtttactg cttgtaatga acatagtgat cactgggaac ctggaagtag agactccttt 120
gcgccgtccc gccgtccctc tggtctgtgc gaatcccccc gccagcctcc aggaccccg 180
gctggctcaa cgccccacc ggccccgccg cccagggcc cgctacgcgc ccggcataat 240
gggagaaaaa tcaggacgga aaggcccagc ccctcgccat gcagacggga agctcggcct 300
gcacatgtga ggacccttac gcccttggg gcttcacccc ctttgctggc tccaatagtc 360
tgggtcgggg cctccttgtc ctgtgggggc ctctgggcca caagaacaca ggcccagacc 420
ccggcgagct cgcgggcctc ccaccagccg tgctcaggct gcacttctgc accccagccc 480
tgcacctgcg ggaccacctg ggtcactttt ccattctgat aaagtccccg tacttcgtgg 540
ctgcaggctc ctcaagcccc aggtctgtgc agggatgagc aaaacagcag aatatccgcg 600
ctacatcttt ctggagcacc cattttacta ccagatttgg aaggaacaaa gttaagtaat 660
ttccaggata agtaattaaa attttatgat gaaaaggctg gaaactcttc tcctggtaat 720
aactgtcaga catatctgtg cctgaaatgt cagactttct ctgagaaaaa aactgagaac 780
ctgtttccca ttattttaaa taggaaacat tatagggcac agcaagtcaa tagaaaaaaa 840
cctaccaatt tcctaattca cagtgtggca gtaggtttta gttgcacgta agttagcagg 900
taaaatgctt aaatgttacc acgtggtcac ccacatttga tatggttggt aacatgcagt 960
tgccttggat gcagtagctt tggcttgaga ccagcaacat cacacgtgaa cctctccttt 1020
gtcaacacac caaagctttt tgaagtgacc gtcatgatcc tgatgggtcta ccagttgttt 1080
ctggaagcaa catgtggctt ttccagcaaa gtatttagtt taaaatgttg taatttttga 1140

aagctcaaac attatctcta caaccatcag ccgaaaaatt tgagacaggt tcttgctctt 1200
ttgcctgaac tgcacatga taggggctcc agcgatccac ctgcttcagc ctccccagaa 1260
gctgagacca caggtgtgtg ccacatgcc tgttaatttc taaatttttt gtagaaatta 1320
catctcccca cattgccgag gctgggtcttg aacttctaga ctcaagcaat tttcctgact 1380
tggcctccta aagtgtgga attacagacg tgagtcaccg accgcaccta gcctgaaaaa 1440
tgttttgtga gataaatagc tgctatacag tttagatatt aaaaactaag atgtgttctc 1500
ccaggaaagt aataattttg gatataattct gtgtcacatc ctgtatgatg aaatagatgg 1560
caaaagaatc ccatttaatt taaagatgga agctgtaact tcaagtaaatt ttggagctga 1620
ggagtccttt cgggctatga cccagaatt ctgggggttct ctgtactgat attttgctag 1680
tgtccacaca caagcattcc ttaatgctgt gcgttaaaca aatagacctt ctttgacccc 1740
agatttctct ccatttacca ttctgtttct ctgctccatg caactacctc acctcatgtc 1800
ctctcttgaa cccactcctt tctagctttt ctccagggtta ctttgctgaa acgactttta 1860
tctcagtcac ttagctgcat ttgacacaga tgatacaatt aaggagtcc tccttgaaac 1920
tctttcttct ggattttaaa gaccttccgt cctggattcc ctctcacctt tttcttcac 1980
ctcctgctcc tcctctacca gatctctagt gatcctctca gaatgatccc acatagtctc 2040
atagctttaa ataccatcca tctgttgata accactaggc ttggggcctc ttccctgagg 2100
ggagcaccaa gactcttccc tgactctttt cccttcgccc ccaaccccca tgcaaccata 2160
cagcaagtcc tgtggctctt gagtgcgaacc agcaacctga ttcaccatct ccatttcac 2220
aaccagtttc agtcatcttc ctctcctact ggtctactgc caaaaatcct cctactgcca 2280
aaaatcctcc aacctccctg catcctatct tgccctcctg cagtccagcc tccactcaag 2340
catccagagt gatctcttga aaatgttaaa acatgatata agcatacccc caccctgtg 2400
taaaccctgc cactgtctac tcattgcagt agaataaaaag ttcagacaac ctgggtgcctg 2460
cctcttaagc ctcatctcct acccttgctt gtctctgcta tgtgggtcag attttccggt 2520
ctccagagct gaaaacaatc ttaactgaca ggcattagat catagactct atctacagca 2580
taaggcatgg aaggaaaagt ctgagagaat gaagggccag aaaagttcat ttaaaaaaaa 2640
taaaaagcac aggaaactgg aaacataact aacctgtatg tatatactca aaagaacatg 2700
gcagcaaaat gaactcttta gaaactgagc caacagactt gcaaatgaat agaaatacct 2760
ttggctctac tctgaaaaca aaaagaatcc ttagtgaata tacaagaaca aaaattgtac 2820
acatttctgg gtcataatgc aataaaaacta gaaataatcg aaagagaatt taaagatgtt 2880

cagcttcctg aaaatgtcag attatccttt taaacaaatt aatgcctatg tcagggtgca 2940
 aatccaaaac acaaatacct tgcctataaa aatatatattt ttcaagcaac agtgtatcag 3000
 gatgtaagga gagagctcac taactcagaa gctcccagag tgaccagatg tgttcatggg 3060
 aaccggagca ctgccctgga gtcatttgac atcaccttat taaaaacagg aacagccatg 3120
 atggggaatg ctgagatgcc agtaataagt cagaggattc cctcctgaac gggacctccc 3180
 agtccttttt ggacacagggt tccagggtgtg accacaaatc catgggtgag ggctttcaag 3240
 atcaacctgc cctcaggcag tggagtggaa actggaacta gcagctacag tggaaaaaag 3300
 gaatgtcctc tcagaatatg tcctctgccc catgcaaaga ctctggatct cagaagtcct 3360
 cctggtaagg actcggagcc agacaacttc atttctgtc acctgggctg ctctccctct 3420
 gagagctatg gaaattgggtg aagcacagga acgtattgga aatggcaatg atgtgcaatg 3480
 ccaatgtgtg gaagtgtaca agttaagtaa tattttaaaa acagaacaca cagcagtttg 3540
 cacaatctga tcaaagctct gtcagtatg tttctaaaca agtttgggaag agaatttgga 3600
 aatggctgaa ttttttaat aaagctcatg tttttagttt gttt 3644

<210> 1380

<211> 3864

<212> DNA

<213> Homo sapiens

<400> 1380

taaactgtct ccagataaga aagtcttaga gcaactatcc tatatttttg aagaaaaaac 60
 aattctatct ggggaagttt tattcttcag aaagaaaaac ttacggaatg ggaaaatcaa 120
 ccctatctaa atcaaccctg actagtcaac ccaagtcaac tctgagtatc tctgaggtga 180
 aagatgaagc atgctgatgg gtgtcaaate caatcttgta tgaataaaat aagcatcggg 240
 gaagcataga tgtcatcttc taaggcaaac attctgagga tctggcagca taaatccatc 300
 agttaattta taatataatt ggacaccact atggccaaag taaaagacac ggccaaatct 360
 ggatcacctt acaattttca agatgctttc aagatcccc ttgtcctgtt atggctgagg 420
 gaagcagtga tgggagtagg caccatagtc tgtaaccctt ccccttctgt ctcggtacag 480

acaaagcaga taagctgggg ctctggtaat cttacacagt ttacttcatg ccaattttta 540
tgctccatga gatccaggta aactgagaat gctgtgcatc tcctacatct aactacatca 600
tttctaaata cttagaaata ttttaagttt taatacttag aagtatttta agttaccgta 660
aagactttga aactgtgaca caggtaccct cccctctgat gtttttccta gtcacctgg 720
gtctcaggta gccacatggc acccaagatg ggtatgaagg gcaggtcctg tctgagtcct 780
gaatttacgc acagctgtag acctcatgac agaagacaga aatgggaaga cattgcctgg 840
aggacggaac cctcccaaaa tagccaggag gcaaagctag ggcaggggaa aaggggatat 900
attgggcttg attctgcctt gcagctgggtg gcctaggcat tgagaatgtg tcctcatgcc 960
tactgtggg catacatcca gacctctgac tccagaggct caaaacaaa aacaagcaag 1020
caagtatcaa attatattta actgataatt ttgaagccat ttctatttta gtaacaattt 1080
acaactacct ttatttacta aatattacat acaagtaaca catatagaca cagacacaaa 1140
gacagaagca gatattatag cttacataaa ggattgtcat ttgctggctt ttgaatagtt 1200
tttcttttcc ccattcagac tatcattctt ccattacctg tttcattgcc ctaaggagtt 1260
gttagctagg caaccttaaa tttgcatttc taatgggaca actcttaggt gaaataaggt 1320
agaaaattta tatctcaaaa gcacaaccta agactttagg cgtacatatt gtaccctcat 1380
ttgctcaaac caaggaaaa atgatgtgag taaaaattt cagttaagat gtccagaaaa 1440
gcaccttaaa caaaggtttg acttggtaca taaatttaaa actatggtaa aagtttctaa 1500
tatacacagg cagacaccct tacaatgga gatttccttt atagatgtaa atttctttta 1560
cagaagagtt tcaggatagc cagttaaagtg ccaggaaggt atattttagt tgggtaggtg 1620
gtttatttga cttagctact gtttcttggc taaaattact gagttcaggg tagatggagc 1680
ccattgagga atagggcaaa gaaaacagta ctctgtgctt ggactcagac tggatagatc 1740
taaaaaagaa gcaagtctgc tttaccact ggtttacatt ttatcaacat tttatccagg 1800
atatcgttat tttcactctt gaggcaggat agtatttatg ccaaagttt agcagattta 1860
attattcttg tgaattattc acctgagctt tttatttgcc tttttttttt ttttttttaa 1920
agacagggtt tccctctgtg taatcacaaa ggcacagtca cagctgattt gcagccttta 1980
cctcctgggc tcaagtgaat ttcccacctc agcctcctga gtagctggaa ctacagggtg 2040
acaccaccac atccagctga tttttaattt ttgttagaga ggagatctca ctatgttgca 2100
taggcttgct ttgaactgct gtgctcaagc gatcttcctg ctttgatctc ccaacgtgtt 2160
gggattacag gcatgagcca ccacacctgg ccctatttgc cttttatgaa gtctttta 2220

aaagcaataa aaatattgaa atgttttttag aagcttctgc acatcaatag gcatccttga 2280
agactaattg aggaccctc atttttaagt gctgtgttgt tcattaggaa cgggccattg 2340
taattttaag ttacaaagat ttgcccattt ctgtaagtag ttatttcttc tgaggcctaa 2400
tatttataca ttctacctta tagctagaag gtagaatacg gtgttcttca gatactaagg 2460
atccaatatt tccctagaat cctggatttg gtcctcagat ccccttcac aatttagtta 2520
atgatttttc cctacctaag ggtacaagaa aaagaatgta gaacacaaaa atctctgcaa 2580
atttctgaag tctgcacca ctgtaatat accatttctg ctagtttctg cctgacctg 2640
gacatctgca gcctcttaac tgaatccaag tcagttaatt atcagatcca atccaatcat 2700
ggatccagtc cagtttctgt tgtgacttcc aaaccagtt cggatcagaa gtttgctcaa 2760
actcggttcc aaacagaaat ctgtcgagct tcagaatctc agcgagaact taccacgata 2820
tcagttgctt ccagaaagca atggacatcg tgagtctgag gggtagcttg cttggtcact 2880
ccatgctcct gggcatgaca tctgttgaaa accttagaca tattaaattt aacagagttt 2940
aactgagcaa agaattgattc acaaattggg tagcccagga accagaatag gttcagagag 3000
gctctgggtgc agtcccatga ttgaagattt atggacacaa aaaggaaagt gatgtacaga 3060
aaacagagat gaggtacaga aacagccaga tttgttacag ttcgggcatt tggagtattt 3120
gaacatagtt tgaacagttg gctgcctttg attgactgaa actcggtaat tagcacaaaa 3180
gtaggttacg atctgtttat acatctagtt aagtttcagt tctactgtga cagagaaacc 3240
tttaggccaa acttaaaata tgtaaggagg tggctttagg ttagacttaa tttacagat 3300
gttatatata ttggttttca tccactgttc ctgtcttgta actcccatag cccttgttaa 3360
agtctttttg ttacaatgtt ggggtgtgtca ggtctcatgt gtctagactt aatttaacaa 3420
atgttacata tattggtttt catccattgt tcttggttg taactcccat agcccttggt 3480
aaagtctttt tgttacaatg ttgggtgtgt caggtctcat gggcaggcct caggaaacag 3540
aatttctcag gctttctcct atccatctct catctgcccc aagacaagac cctataatct 3600
tccctgcctt tctgattggg agttataaga ccctcctcag agggcgtccc accctatcct 3660
tggaggaagg aatgctgata ttttgaaatt tccataaaaa cccaggagga ctaggttcca 3720
gaagcttcag gatggctcaa cacgtggagg ttcttggagg gtggcctgca caggaagggc 3780
atagaagccc tgtgcccctt ccccatacc tctctctgtg catctcttta tctgtaatat 3840
cctttacaat aaaccagtaa atgt 3864

<210> 1381

<211> 3354

<212> DNA

<213> Homo sapiens

<400> 1381

cctgccctcc gacggcgtct ccaggcccca aatggcctcg ggtcgggtggg cttctccagg	60
cccagcttgg gcctcccggc ggcctctgca ggctcaagt gtcctgaagt cagcctctcc	120
aggcccagct ccggcctccc agcaagcaag ctcttttggc tcagctcctg cccagctccc	180
gccggccttt gtagaccctg aactttctcc agcgatgctc ctcagtccca cctgcctccc	240
ggtggcctgt acaggcccag gtctggctgg agaacagcct ctgcaggccc cactcttgcc	300
tcctaggggc atctccaggc ccagctctgg cctcacggcg gcctcccggg accaagtccc	360
tgctgcctc ccagcagcct gtgtgcggcc cagctcctcc gtcacgggtg cctgttcagg	420
cccaactcat gcctctggca ccctttcgag aggcgtgagc ccctgcctca cattggcctc	480
tctcacgctg agggagtcca gcgtgggccc ctgtctcaca ctggcctctc tcacgctgag	540
ggaggtcagc atgagccct gcctcacact ggtctctctc acgctgagag caatcctccc	600
tcacgtggc ctgttgagac ccagctcatg cctctgttgg cctttccagg cccagccct	660
gcctgttggc ggcctctaga tgtccagcct ctacctaac agtgggcccct ccacgcccac	720
ctcttgctg gccgtggcct cttegggcca ggctcccgcc ttggggcagc ccccgaggc	780
ccagctcctg cctcacggcc ctccggaggc caagctcatg cgtcagggca gcctctccca	840
gcctggcggt tgctcctttg catgggctcc aggccttggc cttcctccag tcggcctctc	900
caggcccagc tcttctccc ggcagcctct gcaggaccag actgtcgtca agtaggcctg	960
tccagggaca gtccttctc cccggcggcc tctgtaggcc cagactgtca tcaagtaggc	1020
ctgtccaagg acagctcctg cctcccgggt gcctctgttg gcccaagtgc tctcaagtc	1080
tgctcccca ggcccagctc tggcctctcg gcggcctctc caggtgcaaa agttcctcga	1140
gtccgtctct ccaggctcag ctctcctgt ctccagtggt cctctttcag cccagcccag	1200
ctcatgcctc ccggtggcct tcccaggccc tgcttttgac tttccgcggc ctctgcaggc	1260
cccgaacttg accaccagtc ggcctctcca ggcctggcct cctgcctgtt gacagccact	1320

agaggccccag cctctacctc aacagtgtgc cctccaggcc cacctcttgc ctgcgcgtgg 1380
cctcctcggg ccaggctccc acctcgggac ggccctccgca ggcccagctc ctgcctcacg 1440
gaggccctct ggaggccaag ctcatgcgtc gtggcggcct ctcccggcct ggcgtttgct 1500
cctttgcatg ggctccaggt cctgcacttc ctccagtcgg cctctccagg cccagctctt 1560
cctccccgca gcctctgcag gaccagactg tcgtcaagta ggccctgtcca gggacagctc 1620
ctgcttccccg gcggcctctg taggcccaga ctgtcatcaa gtaggcctgt ccagggacag 1680
ctcctgcctc tcggtggcct ctgcaggccc aaatcactct ccccaggccc agctccggcc 1740
tctcggcggc ctctccaggt gcaaaagttt gaatcagtat ctccaggccc aggtcctcct 1800
gtctccaggt ggcctctttt ggcccagccc agttcatgcc tcctggcggc cttcccaggc 1860
cccacttttg actttccgcg gcctctgcag attccgaact tgacctccag tcggcctctc 1920
ctggccccggc ctctgcctt ccgaaggcct gcacaggccc agtctctgcc tcacagcgga 1980
ctctccacgc ccagctagct ctgcctcac tgcagcctcc cgagtccaaa gctcctgcct 2040
cttggccgct tcggcaggcc cagctcccac ctgccagtgg cctcttctgg cccatggggt 2100
tcattcctca caacggcctt tccaggccca ttttttcct tccgactgcc tctcaggacc 2160
cagaacctct gggcccactt gaggagatgc agccaggagg aacagctggg cttgcagagg 2220
ctgccatgcg ggaggcagag gctgggcctc ctgaagtcgg cctctccaga cccacttgca 2280
gactccccggc atcctctctg ggctcagctc ttctcccgg ctgcgtctcc agggccgact 2340
ccggcctccc aacaacctct ttggactcag ctcccgccca gctcccgggt gccctggttg 2400
gcccacaact tcctgaagcc aagctcccca gcccagctc aggcctcacg gtggcctctc 2460
caggctcagc tcctgcctc tgacagcgtc tccaggcccc gaacggcctc cagtcggtgg 2520
attcctctat gccagcttg ggctcccgg cagcctctgc tggcccaaat cgtcctgaag 2580
tcgccctctc caggcccagc tccggcctcc cggcagcctc tccaggcgca acgcgtcgtc 2640
aacgagggcc cctccggggt cagctcctgc ctctcatcag cctctagagg ccagtctggc 2700
ggcctctgca ggcccagact gcccttgagt caggctctcc agggccagct ccagcctcct 2760
ggcagactct gcaggcccaa gtcgtcctca agtcggcctg gaagtgggcc tggaagagct 2820
gcattttggc ctccccgggc ccagctccgt cctctcggcg gcctctccag gtgcaaaact 2880
tcctcagtc agcctctcca ggtccagctc ctctgcctc ccagtggcct ctttcagccc 2940
agcccagctc gtggctgtag gcagccttcc caggccctgc ttttgacttt tggcggcctc 3000
ttcaggccca gaacttgatc tccagtcagc ttttgcaggc ccggcatcct gcctcccga 3060

ggcctgcacg ggccccggcct cggaatcaca gcagactctc cacgcccagc tagctctcgc 3120
ctcactgtgg cctccccagt ccaaagctcc tgcccttcgg ccgcttcggc aggcccagct 3180
cccgcctgcc agtggcctct ttaggcccag ctcatctc acattggcct ttccaggccc 3240
cgtttttccc ttccggcagc ctcttggcct ctaatttttt ttatcttttg tgtataaatc 3300
ccaaaatatg gaattttgga acatttccac cattatataa atattttggt aggt 3354

<210> 1382

<211> 4268

<212> DNA

<213> Homo sapiens

<400> 1382

ctttgagatg gagtcttgct ttgtcaccca ggctggagtg cagtggcccg atctcagctc 60
actgcagcct ccccttcctg tgttcaagca attctctgcc tcagcctccc gagtagctgg 120
gattacaggc gcatgccacc atgcctggct aatttttgta tttttggtag agacagggtt 180
tcgccatggt agtcaggctg gtctcgaact cctggcctca ggtgatccgg tctgcctcgg 240
cttcccaaag tgctgggatt acaggcgcga gccactgcgc ccgccccgtt tttctttggt 300
taaccattc cctctcatgg tagtggtgct tgagaaggga gtgaaagagt aattgtgtgc 360
tcattatcat cactgcccag aagcttctgg cttcttcagc gccctgcagg tgactcttgc 420
acatacccag cgctgagcac catggtgcag ctcatcccct tcacctccac ggttcttggt 480
tcacagtctt cagagtatag ccactatttt cctctaagcc tctgaacatc tttgagtgg 540
atttaggtgc tgggtgggct gcctgttaca ctgtaagttg ttccgtcagc acaactatgc 600
tgcctgcaaa tgaaggatg aaacctcccc aaactgctgt ctaatggtgt gggatggaac 660
cagctccctt tgagagaaac taaattgttt tttgccactt cttttaattt tttccatggt 720
gccttttttt cctatactc catttaaaca tctattgttt ttgagctctc ttcttcaaaa 780
cttgcttcta ggaactatta cccctcttca ccatattgaa ctctaagtct tttctctcat 840
tctggaaggc catgatacct agaagtagac cacagggttc taacgggggtg ccctgggtcc 900
tgcagcagtc ccctcatcgt gctttaacaa cttatgaccc agtagtttaa acaacgacct 960

agggaagctt gtcccagcct gccctgcgtg tgcccctagt aaaaccatga gcggcaggaa 1020
ggggagcccc tcgcatgct tgccatgacc ctagaggagc agagcccaga gatcatcttt 1080
agggacctct ccctctgggc tgcactcatc cagaaggtgc ttccccgagc ctgtctgtag 1140
agtcagccac agagcagggc gatgagctat cagagaccag ggtgtgtgcc actgggtcca 1200
gcttctgctc ttcttgtctc acagcaatat ttgagtcctg gtgctagcca tggcgcagtc 1260
gttgggctgg tatcagtac aaggtctgga gggtagacag gaagagtggc cagttggctc 1320
caccagcccc tgctcaggaa ggacagaatg tgacaggcac ccaggaaacc tgcttctgag 1380
cgttttcttt agcgcacccc ctacaattag cagatgcagc ttcttgctgg attctgaggt 1440
cacacctcag accagatgta gaggcccagc agtaactgga gtcagtgcag aaggacccac 1500
cacggagagg gagaggcctc tgacaggcca gaagagagca gcagtggagc ctgtttctgt 1560
ctggagccct gctctgctgg gccagaagtt tccaaatggt tttagcagtg ggaccattc 1620
ttcaaattaa aaaaaattt ttttgagtta ggctcttggt ccgtcaccca cgctggagtg 1680
cagtgcacac gtctcagttc actgtaacct caacctcctg ggctcaagtg atcctcttgc 1740
ctcatcctcc tgagtacctg ggactacagg tgtgtgtaca aaatacaaaa aacactccca 1800
gctgtccagc cttaaataaa atcttgtaca taagccagat gtgttcaaca agtaacagca 1860
aaactgggtcc catgaaactg ccccttcac aggggcccctg aggcacctct gcaaggccag 1920
ggccccacag gcgctgctgg aaaactgctg gtcttcgggc cagtgaggac agagagagag 1980
ctcagcacag caggccccgg gcagccatac ccacctcgta ccacggtcag agtctcgagg 2040
agcctcagag atcatgggtc ccggctcctc cagctaagga cacagaccac gaagaggagg 2100
tcctcctagt gtgtcagccc tggctctgag aatttacctt taatttaatt ctagacctat 2160
taacatgggt atcgggtttt taagcccatc tgaaattggg aagaatagac cagaagcagg 2220
aagagggtct gctacaggga aaaaagaact agaaagacca aacagaagtc agaaagtaca 2280
gctaccacgg ggccatgtga caaatggccc aaccaacca cacgcctcag cgccccctga 2340
ggctgcacgg atagacggac agacacacag cagcaccatg aatccttgag ggaaagtaaa 2400
gctcagcatg tgtcagtctt tacggggatt caagggtaaa acagggaggg agagagactt 2460
ggagggaaaa gaaaaggcag tgtggaaagc acaaattggc gcctggataa ccgtggtttg 2520
tttgggttag gattatttcc agaggcgtct ttctggggc atttgtgctg ccgcttcaaa 2580
aacctcgggt ccacctgggt attcctgaaa cattcctgct gaatttcttc caagttctga 2640
taagtccatg ccaaatgggt ctgtctagat acatgtttcc tttggctgtg aaatcttcag 2700

catgtttttg tttttcagcc tgggtttacc acattctgac tgaggaacat gtgtgagtgt 2760
gtgtgtgcgt gcgcacacgt gtgttgataa aagctatgat aaaagctcag ctacaagaag 2820
tttgaagaac tgtggtctga gccccagaca cttgtgtttt ctttttcttt tcttttcttt 2880
tttttttgag atggagtctc gctctctccc ccaagctgga gtgcagtggc gcaatctggg 2940
ctcactgcaa gctccgcctc ccagggttcac accattctcc tgcctcagac tcccagtag 3000
ctgggactac aggcgcccgc caccacgcct ggctaatttt ttgtattttt agtagagacg 3060
gggtttcact gtgtagcca ggatggtctc aatctcctga cctcgtgatc cgcccacctc 3120
ggcctcccaa actgctggga ttacaggcgt gagccaccac gcccggcctg tttgtttttt 3180
ttttttgata cggagtttca ctcttgttgc cgaggctgga gtgcaatggc gcgatctcgg 3240
ctcaccacaa cctctgcctc ccgggttcaa gcgattctcc tgcctcagcc tcctgagtag 3300
ctgggattac aggcatgagc caccacacct ggctaatttt gtatattttt tagtagagat 3360
ggggtttctc catattggtc aggcttgtct tgaactccgg acctcaggtg atacgcctgc 3420
ctcagcctcc caaagggtg ggattacagg cgtgagccac cacgcccagc ctcttttgca 3480
tttttatgaa gtttttaata tgaataagcc aaaatttttag atcacctact actttttttt 3540
ttgttttttt agtagagatt aggtctcgag ctactgggct caggcaattc tcctgcctca 3600
gtgtctcata gagctgggat tataggtgta agccactgtg ctcggccttt tttttttttt 3660
aattgaattt ttttttattt ttttgatacg tagtttctact ctttttgccc aggctggagt 3720
gcaatggtgc aatcttgact caccgcaacc tctgcctcct gggttcaagc aattcttctg 3780
cctcagcttc ctgagtaggt gggattacag gcgcccccca ccacgtccgg ctaattttgt 3840
actttttttt tagtagagac gaggtctctc catattggtc aggctggtct caaactcccg 3900
acctcaggtg gtccgcctgc ctcacgcctg taatcccagt actttgggag gctgaggtgg 3960
gtgggtcaca aggtcaggag ttcaaaacca gcctggccaa aatggtgaaa ccctgtctct 4020
atcccagtac tttgggaggc taaggtgggt ggatcacaag gtcaggagtt caagaccagc 4080
ctggccaaga tgggtgaaacc ttgtctctac taaaaataca aaaattagct gggcatggtg 4140
gcaggcccct gtggtcccgg ctactcggga ggctgaggca ggagaatcac ttgaacatga 4200
gaggcagagg ttgcagtgag ccaacatcac accattgcac tccagcccgg gcgacaagag 4260
caacactc 4268

<210> 1383

<211> 4277

<212> DNA

<213> Homo sapiens

<400> 1383

```
acaccagcgg ctggacattg agaggatcac agcagtggaa aaagacacaa gcacctagcc 60
gttgagagga acgcactggc ctaagaacat actgacagac gccggtaggc cagcaggccg 120
gcaggccatc aacccgcgga aggacacgga ctttggccag ggcggtataa ggagcctaaa 180
ggacgtcata cccatgggcc agacctaaac ttcctttctg ctgatcccaa gtttttagac 240
aaagtttccc ttccttaacc aattgcgaat cagaaaatcc tcgaatccac caatgacctt 300
taccagtaaa gatgtcatct ggccaatttg tgtgaaaaaa gagaataatt ctcacccaaa 360
ccgcctgtct ctggaaataa gaaaagctct gaggggtctc aaagttacca gaggaaggct 420
gaattttatg gtgattgata atatttccaa gcttatggag aaaaaaatat cattagtctt 480
ttccatggta gaaaagagta aagcctgtta caaaaaaagt gatacagtgg atgggatgat 540
gagacccttg aaataagcaa ggatggacca gaaactggta acactcacc atggaatttc 600
attatgaagt cgtggcaagg gccaaagcga cctggatttg aaacccatct cttcaacgat 660
gtagattctg acaacatatt tgatttctct gggcctcagt ttgttatctg cacaaaaggg 720
agatatgagt ggttacgtta ttggattgtc atgaacatta aataggataa tgtcaaatca 780
ttcagccaag tttctagcat atagtacagg ttcaaatatt atcttttttt tcccaccaac 840
ctcttttcca ggaaaatgca aagctactct ttagccaaat tttaaacag gggatattta 900
ttttgggaat cattaatacc catctgcccc ttttttggtc cattggacat attgaaatga 960
atgattaata cttatcactt catggtgtac acattgtttt gtttcttata tccagagtct 1020
agtcctcaac tctaaccaaa gtaaaggaaa ctggaaagac acacgctttt tcagtcatta 1080
atagaaagtt gtccagaaac ccggcgagtg aatctaccca gagctgaagc ttcctttgca 1140
acttggaac accagggccca cagtgacttt gtggcttggc tttagataaa tttgaccatg 1200
gctgtagaac ccagcagctc agaatccatt aaaaggagag ctgggaggag gtcctgcca 1260
tacgccagac agttttgtag acacgaagga tccagagatt agcaacacct ttaccatttt 1320
tggtgacagt taagcaccca tctaagaagt tttcttttgt gagtgcctaa aagtgttaact 1380
```

cccattcccc ccacacccgc gccgcgatac gaccgctcca ccctagagtg gagatggaga 1440
ccaagcactt ggagatctaa atcaagtgtc cccaggagct cagctgagcg acaaagctga 1500
gcagaaaagcc cagactgcgg gcgcggcagg accacggaga gcgccgccgc caaggcctgg 1560
gcggggcctg agctcgggtt cccggggcaa tgctcgtctc cgtcagcaac ccccaggggg 1620
cgctcgcgcg gaggtttcgg aaccagtctc ttgccgggtt gctgggtgca tgggattcgt 1680
cagaagggtg aaatctctct gtgagaagct gccatctccc cgccacccgc tcgtcccctt 1740
ctctttctgc caccctcctt tccttctctc ctcgctccac tccactccct ccctcttttc 1800
tcagtaccct cctctttact ctccgagtta actgagagcc gacctgacat ctccaacatt 1860
ttcacctctt tccccaccc ccatcaccga gaatggagtc agggtttccg gagagaccga 1920
actctgctct cagcaccttt cccagccgct gttgctaaac tgacctcgga ggacgagagg 1980
ggaaggaggt gcgacgcccc ttacatcagt acataactac cacaccaacc acctccactt 2040
caaagccgga ttttgcatcc tgggggcggg acagacctcg tcccgggctg aattctctct 2100
ccactcttcg agattggcac acccagaatg aagaagatga gcaacattta tgagtccgct 2160
gccaacacac tgggaatctt taacagcccc tgcctgacca aagttgagct gcgtgtggcg 2220
tgcaaaggca tttctgacag agatgccctt tccaaaccag acccctgtgt catcctcaag 2280
atgcagtctc atggccagtg gtttgagggt gacaggactg aggtgattcg cacctgcata 2340
aaccagtggt actcaaaact gtttactgtg gacttttact ttgaggaggt gcagcgcctg 2400
cggtttgaag tccatgacat cagcagcaac cacaatgggc tgaaggaggc cgacttcctt 2460
gggtggcatgg agtgcacact tggccagatt gtttcccaga gaaagctgtc caaatccttg 2520
ctgaagcatg ggaacacagc agggaaatct tccatcacgg tgattgctga agaattatct 2580
ggcaatgacg actatgttga gcttgcatc aatgcacgga aattggatga caaggatttc 2640
ttcagtaaat ctgaccatt tctggaaatt tttcgtatga atgatgatgc aactcagtag 2700
ctggtgcacc gaactgaggt tgtgatgaat aacttaagcc cagcctggaa atcattcaaa 2760
gtatctgtaa attctctatg cagcggagac ccagaccgcc ggctaaagtg catagtatgg 2820
gactgggact ccaatggcaa gcatgacttc attggagaat tcacctcgac attcaaggag 2880
atgagaggag caatggaagg gaaacagggt cagtgggagt gcatcaatcc caagtacaaa 2940
gccaagaaga agaattacaa gaactcaggc actgtgattc tgaatctgtg caagattcac 3000
aagatgcatt ctttcttgga ctacatcatg ggtggctgcc aaatccagtt tacagtagct 3060
atagatttca ctgcctcaaa cggggacccc aggaacagct gttccttgca ctacatccac 3120

ccttaccaac ccaatgagta tctgaaagct ttggtagctg tgggggagat ttgccaagac 3180
 tatgacagtg acaaaatggt ccctgccttt ggggtttggcg ccaggatacc tccagagtac 3240
 acggtctctc atgactttgc aatcaacttt aatgaagaca acccagaatg tgcaggaatt 3300
 caaggagtgt tggaagccta tcagagctgt cttcctaagc tccaactcta cgggtcccacc 3360
 aacattgccc ccatcatcca gaaggttgcc aagtcagcgt cagaggaaac taacaccaag 3420
 gaggcacgc aatacttcat cctgctgac ctgacagatg gtgttatcac agacatggcc 3480
 gacacccggg aggccattgt ccatgcctcc cacctcccca tgcagtcac catcgtggga 3540
 gtagggaacg ctgacttcag tgacatgcag atgctggacg gtgatgatgg gattctgagg 3600
 tcacccaagg gagagcctgt tcttcgagac atcgtccagt tcgtgccctt caggaacttc 3660
 aaacacgcat ctccagctgc cctggcaaag agcgtgctgg ctgaagtccc aaaccaagtt 3720
 gtggactatt acaatggcaa aggaattaaa ccaaaatggt catcagaaat gtatgaatct 3780
 tccagaacac tagcaccatg aactccccac acagttttac agagttctga aatactattc 3840
 ctgctaatat ttcataatga atactttctac tactcctgta ctttaaaaaa ccaacaacat 3900
 atacacattt aaaaatagca cgttttggtg atttttaact atctgacaat tttttttgca 3960
 tgtgtagccc tgaggcctgg atctgttaag cccttgtatt gttactttt taaaagaaa 4020
 cacagataac aataacttac tatttacatt acagcatgtc gccttgaaat aaaatggtat 4080
 ctgtatccat tttttataga ggtttgttga aattttgcta aatttcttat ctttacactc 4140
 taaagcattt tgaaacattt actgaatgtt gatagacgaa atatacttgg ttttatctgc 4200
 tataggatga gagacttttt aaaatggcag atgcatggac tgtattttgc atgtttaaaa 4260
 taaaaaaaga aaaaccc 4277

<210> 1384

<211> 3003

<212> DNA

<213> Homo sapiens

<400> 1384

ctggacagca atgtaagtgt gaaatgtctt tcaagagagt atggtgttgg agtgaccacc 60

atacatgacc tgaacaaaca gaaagataaa ccattgatgt tctgtgctgc aagtgggtgaa 120
tagagggttaa tgaaaaatag aaaaagcact ccatgaagct aaaaatgaag atattgattg 180
tgtattgaaa cagtgaatcc atcagtgttg gcagtgaaca cgtgcctctt aatgggtatgc 240
tgatcatgaa acaagtaacg atctatcatg atgaactgaa tgttgaaagg agctgtgaat 300
attcaacaca ctggttgcag aagtttaaga gaagatatga cattacattt ttaaagattt 360
gtgggtgataa agcatctgat gatcaggaag caatggagaa gttcattgat aaatttgcca 420
aagtcattggc tgatgaaaat ctgccagAAC agtttataat gctgatgaaa tatatccctg 480
ttctgggtgtt attgtctcaa aaagacactg ggctacagtt gatgggacag cccctccagg 540
aattaaggat accaaggaca gaataactgt cctgggatgt gctaatagcaa ctggcataca 600
taagtacaaa catgctctga taggcaaaac ctttcacact tgttgttttc aaggagttaa 660
cttcttacca gtccatgggtt actctgacac aaaagtatgg atcaccacag acatcttttc 720
tgattgggttt cataaacact ttgtaccagt ggcttgatgt tactgcccac aagctagact 780
ggatgatgta ggagtttggtt attccttgat atcacccaat tcaccccca gctaaaattc 840
tcaaaaactaa tgtttatgcc atgtactttc cctcagatgt gacttcatta attcagccat 900
gtgaccaggg tatctttaga tcaatgaaca gaaaatataa atccacttc ttgaacagca 960
tgctggcagc agtgaacaga ggcatgggtg caggaaattt tcaaaaggag tttagtataa 1020
agaatgccat atatgttggtt gccataactt ggaacacagt gacaaagaca cagttgtgca 1080
tgtctggcac aacctctggc ctgcaactgt gtttagtgat aatgatgaac tgtgtgtgtg 1140
tgactttgaa ggattctgta tgtcaagtga aaaaaaatga tgtctgacct cttacatat 1200
gtaaaaaata taccttcaga gttcagcagt aagctggaag aagtagatgt caaagaagtt 1260
ttgaactttg ataataatgc ttcagttatt cattcattga ctggtggtaa aatagtcgaa 1320
atggttttga atcagggtta tgatagtgat gaagaaggtc aagataacac cacagaaaag 1380
gtgcttatag aagaagacat ggtgaaaatg tatgggtggc atattgaagg attacggcag 1440
cgtgcattaa caacagaatg aaaaaccatg tcagttttta aaattgaaga gagacttctg 1500
agctaaaaac catgttaatg aggcagatga ctccacaaga accattttta aaagccttcc 1560
agcagaatgt ctcttcaccc cccgtaggat ccacttctg gtccctcagc tgcttctgat 1620
gtttcttctt aactaaaaaa cacagtttat agtaaccttt gaataaaaaac acagcatcat 1680
aggtgaagac tgaaagcctg ctgttggttg tagctgcttt ttcctttttt ttttttgaga 1740
cgtagtttca ctcttggtgc ccaggctgga gtgcaatggc gtgatctcgg ctactgcaa 1800

cctccgcctc ctgggttcaa gcagttctcc tgcctcagcc tcccagtag ctgggattac 1860
aggcgaccac caccacgcct ggctaatttt tgtatatattg atagagacgg ggtttcacca 1920
tgttgaccag gctggctctg atcttctggc cttaggtgat ccacttgcct tggcctccca 1980
aagtgctggg attgcaggca tgagccacta cccccggctc tgtggttggg tttgtttaat 2040
agctgaaaca ggtatcctgg tgatgctact atgctgctta gttgtcctga cacattattt 2100
tttcagtgtt aatggtatgt catattttta ctgttaagta cttaatgtat gaataaatgt 2160
aagaaaacaa ttgcctattg ttagcatgta gattaagagt caggaatgat gactcttggt 2220
gacatgggtg gctgagatag tgacaccttt gctttctgat gggtcagggt acacaaactt 2280
tattacaggc acaaaattat caaaaatacg gtataaaatt accttaaggc tatgtatata 2340
agggatgtgt gtatgtgtgt atacacacaa aaataaatTT tgtgtttcca cttggatccc 2400
ctccctaaga taactcattg tgtacatgca aatattagaa aatgcaaaaa aaagaaaaaa 2460
aaaagaaatc tgaaacagtt ctagtctcaa gcattttgga tgagggatac ccctcctcta 2520
ttttatcacc attttcatgc tgtattaaaa tgaaattgcc aactcagttc aaaggaattt 2580
ttcttcttag ctttacattg ttgattcatg gtggaggcga acaaactatc gactggtggg 2640
ttggatacct tggtcagag aggtccttgt gacatatctc atggcccatt acctaggtga 2700
tgtgagtctt gccttctgcc tgcaataaag ttttgttggg atgcagctat gccattttac 2760
tagtgtattg tccatagctg cttctctgct acaatgtaga ttagcagttg taacagagac 2820
tatatggccc ccccaggtta aagtatttat tagctgtcct tttatagaaa aaaatgtccc 2880
acatcagatt tatggaaatg tctgttcctt tgtttacggt ttgccatga ctttttaaca 2940
ctttcacaga cattattgtt cattattata tgtcagaaat aaactcactt tttgtaaact 3000
ttc 3003

<210> 1385

<211> 3220

<212> DNA

<213> Homo sapiens

<400> 1385

tttctgattg agttatatgt gtagtagttc cccattatc tgaggtttca ctttctgcgg 60
tttcagttac tgctatacgc tacactaaac agtaagatac tgtgtgagga gagagaacta 120
cattcacata acttttatta gattatgttg ttataattgt tctattttta tttcttatta 180
atctcttact gtgcattatt tataaattaa gcattatcat aggtatgtac ttataggaaa 240
aaatatagca tatataaggt ttggtattaa ccacaatttg aggcatctgc tgggggtctt 300
ggaatgtatc ccctgcagat aaggaggagac tactatactt tatgaattta ttaatggtaa 360
gatctagtgg cagggtctaat aactactttc aaagcagtgg tgagcgtaaa caatatgtta 420
agataactgc agcaagtata gtacaaaatg aaaaatgtct gtggtttcta ttgtgtcagg 480
gtgtttttaa ttttacctat attcatagtt tgttgtctac attcataatt taatgatatg 540
ctaactactt tcaaagcagt ggtgagcata aatagtatth tgaggccgtg cgtggtggct 600
tacgcctgta atcccagcac tttgggaggc caaggcgggt gaatcactga ggttgggagt 660
tcgagaccag cctgaccaac atggagaaac cccatctcta ctaaaaatac aaaattagct 720
gggcatgatg gcgcatgcct gtaatccctg ctacttggga ggctgaggca ggagaatcgt 780
ttgaaccggg gaggcagaga ttgcggtgag ctgagatcgc cccgttgcac gccagcctgg 840
gcaacaagag cgaaactctg tctcaaaaac aaaaaacaaa accaaacaaa aaacaaaact 900
acaatattht gaggttaactg cagcaaatat agtacaaaat aaaaaaatgc ctgtgatttc 960
tattgtgtca ggggtgttht aatthtacct acattcatag tttgttgtct acattcataa 1020
tttaaagata tgctaaatth tagccagagg ttaatgaaaa tgaaggtaac atththththt 1080
aaccatcga ggttcacaga accactgaat ctattagtag acaccattaa ttaaacatcc 1140
atggtactgt tgattcttat ttatctthta tathtcattc caaatgttga ctctcagag 1200
agtcaththt tgataccag actagatcca atthccctgt tatactcttc aagcatctca 1260
cathththcc ttgcaggact taactcagtt ggtaatggta catttgtgca ttggttgtct 1320
gcctctcttc acctctthcc ctgaggaagg agttggtatc tgtagtcac tgttgtatta 1380
ccagcacata gtagatgctc agtaaataat ttgttgagtaa ataaagatta ggaaagctat 1440
caaactaatt tattacctta gtaagtagga aaagagcttg gtaacttgag agactgactg 1500
aaggccagtg tctataatca tthtcaggga tatgtagttg taaaatacat gtagctatag 1560
tcaggatgta aagtaggtca cagtaaccaa atagcaaggg gtttagggaa aattagggaa 1620
ctggagaaag ggcaaatgtt tcatgaggga aaagagaagg tgtaatgtth atgggtggac 1680
ttgttgcttg ctctgtcacc tctacccta ttagtcctgc cattaccatt ttacttaate 1740

acttagccag gcctgataca tagtagtctt tgctaactgg atattatgga ggtaaagctg 1800
 aaggtttttg tttgtgaaat gttacactaa gataggagct tgtgatagat ctttaaataa 1860
 tgctttttaa atgtgcctgt ttatattaat cttcaccaga atgtcacagg tagactaatg 1920
 gttggcctac gttggtggaa tcacattgat gaagatggaa agagccattg ggtgtttgaa 1980
 tctagaaagg agtcctctca agagaataaa actgtgtcag aggctgaatc aagaatcttt 2040
 tggttgggac ttattgcctg tccagtactg tgggtgatat ttgcctttag tgcactcttc 2100
 tccttcagag taaagtgggt ggcggtgggt atcatgggtg tgggtgctaca aggtgccaac 2160
 ctgtatgggt acatcagggt taaggtgcgc agcagaaaagc atttaaccag catgggtact 2220
 tcatattttg gaaagcagtt ttttaagacaa aacactggag atgatcagac ttcctgaata 2280
 gagaaagctt atgtgctttg ttacattggg gaacaactga agagattctt gactcaacct 2340
 tttagagctt agtccatgtt gcaacgagga gtgttggctt tgtttttcca cttaaaaact 2400
 atttataaaa aggaaaagta gttttcatat taagttttta tttcctttcc agcagttggg 2460
 gctagaaagt atgtgttggc actagaaaca ttgtcaagat ttgttctgtg gtgtaggtat 2520
 gcacattcca taggtatgca cacggccatg taatatcagt atatcccaag ttaatgaaag 2580
 tgttcattta cataggcaat ggagaccttt gcattttgat ccatagaaca taggaggatg 2640
 ttcttagtct gtctcaaagc tctatatgtt tacatattat ttctgtagat tgttttcagg 2700
 agaaagtttt gcttctatgg taagagttag cactttggct tatgtataag ttagaaataa 2760
 ttgttagttt ttaatatgca cttcgtgggg aaatttctta gacgtatgca agcaagtga 2820
 aacaattagg gccagtggta ttaactactt tataaaattt tatttttgtt tgtaagaagt 2880
 catctactta aggcccagtt aatataagtg gaatcatcat agtttaagga ataccagag 2940
 attgctgctg ttctatttat tttacagaaa ggatagctag attgaaagct cttcagtgga 3000
 ccttgagcta atagatcttt taccactaaa agagcattat tctcatgtca taatgagaat 3060
 aataatttac aacttggca taataaatgc ctaaaagaca ttttattttc tgaatctatt 3120
 tttttcttgc tataatgggg atattgtaaa ttatgcattt gtattaatgg tatttcttaa 3180
 agcaatctat gtaactgtaa attaaaccaa tctacaaact 3220

<210> 1386

<211> 3060

<212> DNA

<213> Homo sapiens

<400> 1386

```
gctgcgtggc cctggccaag tgcactgggt gctgtctggg ccacctctgt cactttccag    60
acacttcatg gagaccacaa tgaagccctt ctttcagttg gtctgtgtca cctggcacaa   120
agccaggatg cacagtatgt ccagtggaag gagggagcag cttatctgcc ttcagctcca   180
gcccccttctg tggctcccta gtacctccgc ccagctgtgc actggcccgt caacctcact   240
gcatgccagc ctgagagctg attcactcca ggccaatagg taacaatgac tgcagtttct   300
atgtcaccaa gcagaaagca aaggtatcag gttctagtgg attctttttg ttcacctctg   360
aacttaagcc aggtgtatgt gttgacagca tcaggaagta ggcagtgcag gtacgggacg   420
gtgctgtgtg caccaatcaa gatctctagc tccatggccc tgatttttcc tgttacgata   480
atggcataag agtggccact ccattctact tctttttttt tatttttttt taatgcatac   540
ttgaaaaaaa aaacaaacag tcaaacaaca cagacagata ggaagttaag aaaagctgcc   600
tcctttccca gtagcgtctt ctccgcatgt tttcttagga gcaaggcact gctgggtgtg   660
ctctggatgc atatgggcca tgtatattct ttgctgccta tgttctggac acgatggcct   720
tgttgagcct cctgtcccac aggcaggggg atgtcctatg ggaagagcta gttaacttgt   780
ccttcagagc tctgacctag acatgcttgt ttggctgtca gtgaccagga atgggccatg   840
cccattttct cagggttttt acatgtgttg caatgcagac ttttttttga gacggagtct   900
cactctgctg ctcaggtttg agtgcagtgg cacggtctca gtcactgca aactctgcct   960
cccagattca agtgattctc ctgcctcagc ctctgagta gctgggatta cagggtgtgca  1020
ccaccacacc cggctaattt ttgtattttt agtagagacg gagtttcacc atgttgccta  1080
agctggtctc gaactcctga cctcaggtgc tccacctgcc tcagcctccc aaagtgtgg   1140
gattacgtgc atgagccacc gcgccctgcc ccaatgcaga cttatcaggt tgatctcaga  1200
tgctgttttg tcagcacaat taacttgta gtgtgtggag aaagggcgtc acttccatca  1260
gttgagagcc tgggtgtttt tggctctggc gaggtctgga tgaaagcagt cttggcaccg  1320
agcagagaaa gtgggaagct ggtgctgcag caggtgccag agtacgcaga ggccatatgg  1380
ggagccccgc ctgcctgcag aggcctcgtg ttctcagcct gagggctctg gctctgctcc  1440
tccagctgct gcagtggaag tcagagaaga tgccctggca gggtcactag aggagtggag  1500
```

ggaagggcac ttcgtaccgt ggcacttcat atttgggagc aaagaaagca tccaccacat 1560
aaggcgcttt tcacaaagtt gctctggttc tggaaagctg tttgaccaag cgaggtgaac 1620
ctagatagcc tcaccctttc accctcaagt tggactcaca gtggcaggct ctggagccac 1680
atttcatgtg acctttttat gtaaagtcct tcagcaaatt gatgaggaag acatggcaaa 1740
atattccaca tgaatagaca tttccttgtg tgggcatttg ggttctacag ttttactgtt 1800
ataaaaagta tttgctggtt tctttatfff aatttctatt aactaaagtt atcagctcaa 1860
aagatagaaa caacagaagt ataaatgaaa gcatctttga ttttgaggaa cttttgagag 1920
gacctatctg actcattaaa tcttttttgt tcttttagtac tcccacagga ttttttaaaa 1980
tcccatggta taatttgtat acaataaaat gcacacagtt cagccagttt gaaaatgtat 2040
acacccatgt aatcagaaca tttccatgtc cccaaaaggt cctttcctgt cagtcctcac 2100
ctgatccctt ggcccagaaa cctctcagct acctcccatc ctcatagatc tgtctttctc 2160
agggttccat gtggatggaa tctcactgcc cttttgtggt tggttatttc cccttcccc 2220
agcttggcat ttgttaccct agcttggcat ttcattccata ttattgcata ttaggagttc 2280
catccttctt tattgccaag tagtacttta ttgtattaaa agcttcgtgt ttcaagtacc 2340
atcatggtac agtctctacc taccagtaat catctaacat ggaaacttgt ttcagattaa 2400
ggtatccatc ttgcatgtt gccttgacag aatgtgtctg cagattagaa aacgcactta 2460
ggaactttgc ctgtctgacc accgggggatg tgattgccat caactataat gaaaagatct 2520
acgaactgcg tgtgatggag accaaacccg acaaggcagt gtccatcatt gagtgtgaca 2580
tgaacgtgga ctttgatgct cccctgggct acaaagaacc cgaaagacaa gtccagcatg 2640
aggagtgcac agaaggtgaa gccgaccaca gtggctatgc tggagagctg ggcttccgcg 2700
ctttctctgg atctggcaat agactggatg gaaagaagaa aggggtagag cccagccctt 2760
ccccaatcaa gcctggagat attaaaagag gaattcccaa ttatgaattt aaacttgga 2820
gctcctagga ggtgttcctc actaaaatga aggaataagg tagaaataag aaagtcatag 2880
aatccaggaa ataaggagcc cccactaaca tgtacggcac ctagagaaag gccagtccag 2940
gatgaagctg gaggcagatt cgctgctttc tctggagaag gacagtcatt gcgtaaaaag 3000
ggaagaaagc cctaagtgag gactgttggc tgattggaaa ataataaaag aatcatttgc 3060

<210> 1387

<211> 3940

<212> DNA

<213> Homo sapiens

<400> 1387

gttcgccatg gatttccta tcaaccctca gccctggcct ttgatcctgt acagaagatc 60
ctggcagtgg gaactcagac tgggtgcttta aggctctttg gtcgtccagg agtagaatgt 120
tattgccagc atgacagtgg agctgcagta atccagctcc agttcctgat taatgaggga 180
gcgcttgtga gtgccttggc tgatgacacc ttacacttat ggaatttacg tcagaagagg 240
cctgccatac tacattcgct taaattttgc agagaaaggg ttacattttg ccatctgcct 300
ttccagagta agtggctcta tgtgggcact gaacgaggta atatacatat tgtcaatgtg 360
gagtccttca cactctcagg ctacgtcatt atgtggaata aagccattga actgtcatct 420
aaatctcacc caggacctgt ggtccatata agtgataatc caatggacga gggaaagata 480
tttgaaaaga ctgggaaaag agagaggaaa caaataccat ttttttccaa aaggtgtatg 540
tatctcagat tgcctaggaa agaagagata agcttttgat tggctttgaa tctggaacag 600
tagttttatg ggacctcaaa tcaaagaaag ccgactacag atacacatat gatgaggcta 660
tccactctgt tgcttggcat catgaaggaa aacaatttat ttgcagtcatt ttagatggca 720
ccttgactat atggaatgta aggtcccctg ctaaaccagt acagacaatc actccacatg 780
gaaaacagtt aaaggatggg aagaagccag aaccatgcaa acctatcctc aaggtggaat 840
tcaaaacgac tagatctggg gagcctttta ttattttatc aggagggttg tcatatgata 900
ctgtaggaag aagaccttgc ttaacagtga tgcattggaa aagcactgct gtgctagaaa 960
tggactattc aattgttgat tttctaacgc tgtgtgaaac accataccca aatgattttc 1020
aagaaccata tgctgtggtt gttcttctag aaaaggattt agtacttata gaccttgcac 1080
aaaatggata tcctatattt gaaaatccct accctttgag tatacatgag tcccctgtta 1140
catgttgcga atattttgcg gattgtcctg tggaccttat tcctgcactt tattctgttg 1200
gagctagaca gaaacgtcaa ggttacagca aaaaggaatg gcccatcaac ggaggtaatt 1260
ggggccttggg tgctcaaagt taccagaaa taattattac agggcatgct gatgggtcag 1320
ttaagttctg ggatgcttct gcaataactc tacaagtatt atataagcta aagacatcta 1380
aagtatttga aaagtcaaga aataaagatg acaggccaaa cacagacatt gtagatgaag 1440

atccatatgc cattcagatc atctcctggt gtccagaaag tagaatgctg tgcacgctg 1500
gagtttcagc tcatgtcatt atttatagat tcagcaagca ggaagtaatc acagaagtca 1560
ttccgatgct tgaagttcga ttattatatg agataaatga tgtggaaact ccggagggtg 1620
agcagccacc acctttgcca acaccgtgg gaggggtccaa ccctcagccc atccctcctc 1680
agtctcatcc atctaccagt agcagttcat ctgatgggct tcgtgataat gtaccttggt 1740
taaaagttaa aaactcacca cttaaacagt ctccagggtta tcaaacagaa ctagttattc 1800
agttggtttg ggtgggtgga gaaccaccac aacaaataac cagcctggca gtcaattctt 1860
cctatggact ggtggttttt ggcaattgca atggcattgc tatggttgac tacctccaga 1920
aagcagtgct gctcaacctg ggcactattg aattatatgg ctctaataat ctttatcgga 1980
gagaaccccg atctcctcgt aaatctcgac agccttcagg agccggtctg tgtgatatta 2040
gtgaaggagc tgttgttcca gaggatcgct gcaaactctcc aacctctggt tcttcacac 2100
cacacaattc agatgatgaa caaaaaatga ataattttat agaaaaggca aagatgtcaa 2160
ggaagttaag cttacctact gacctaaagc ctgatttaga tgtaaaggat aactccttta 2220
gccgatcacg gagttcaagt gtaacaagca ttgacaaaga accccgagaa gcgatctccg 2280
ctcttcattt ctgtgaaacg ttactcgaa agacggactc gtcccttcc ctttgtctat 2340
gggttggaac aacgctagga acagtgttg tcattgcact gaaccttccc ccagggggag 2400
agcaaagact tcttcagcca gtaatttgtt ctccaagtgg tactatattg aggttaaaag 2460
gtgcaatctt gagaatggca tttctggata ccacaggctg cttaatacca cctgcgtatg 2520
aacctggag agagcacaat gttcctgaag aaaaagacga aaaggagaaa ttgaaaaaac 2580
ggcggcctgt ctcagtatcc ccctcctctt ctcaggaaat tagtgaaaac cagtatgcag 2640
tgatatgttc tgaaaagcaa gcaaaagtaa tctcactgcc aaccagAAC tgtgcttata 2700
agcaaaatat tacagagacc tcgtttgtgc ttcgtggaga tattgtagca ttgagtaaca 2760
gtatctgcct tgcctgtttc tgtgccaatg gacatataat gacttttagt ttgccaagtt 2820
taagacctct gttggatgtg tattacttgc cccttaccaa tatgcggata gccagaacgt 2880
tctgctttac caacaatgga caagcattat acctgtttc acctacagaa atccagagac 2940
ttacttatag tcaagagacc tgtgaaaatc ttcaggaaat gttgggtgaa ctcttcactc 3000
ctgtagaaac acctgaagca ccaaacaggg gattctttaa aggcttattt ggaggtggtg 3060
cacaatctct tgacagagaa gaactatttg gagaatcgct ctcaggaaag gcttcaagga 3120
gccttgaca gcatattcct ggccctggtg gcattgaagg cgtaaaaggg gcagcatctg 3180

gagttgttgg tgaattagca cgagccaggc tggcactaga tgaaagaggg cagaaacttg 3240
 gcgatctgga agaaagaact gcggccatgt tatcaagtgc agagtcattt tctaaacatg 3300
 ctcattgagat tatgttgaat tacaagata agaagtggta ccagttctga caaccagaat 3360
 ccaataagtc caacttcagc cagaaggaaa aaagttttcc atttttatta cattcttttag 3420
 gaaagttaac gttaaaggga tggtcgtcac tgaatactgt tctttcctag cacagtcattg 3480
 cactgtttta cctcagtcatt gtggctttta ctgaggagtg ttcacacgca ctcgaaatgg 3540
 agtatatggg gtgtgccagt tatgagttga ccatttgagg attaaacagg tcacacgtga 3600
 cagatgaaga aaccaagggg gctgctgagg agacctggg cagggactaa tcctggatca 3660
 ttctgtatt aaactttcat atgccaaaag gggttgtgcc gttttatctg ccatcagttg 3720
 ttgacctgtt tagggcagag gcaataagtc agaagtcttg aagttgaaat agttatatgt 3780
 gtgtcattgg actggattat aaacagctgt ctgggacttt ccctctctta acactgactg 3840
 gtcattcagta tcattagtga aaaagaaaca aattgtttgt tatcatctct ttagacagat 3900
 aagctgaatg gtgggcttta aataataaaa acatacacat 3940

<210> 1388

<211> 3494

<212> DNA

<213> Homo sapiens

<400> 1388

gtaatacggc tgcctgcgga accggctgac cggaagtgtg gctgtgggtg gtttaccgcc 60
 agactgtgat ggtggcgggg cacggctgag tgactgggtg gttgggtgagg acggggcagtt 120
 ggactgggag caaggcaggc cctgccaggg ggactgacag gctccaaggt gatcttccta 180
 ggaatgtcca cagagtgtgg gacctggcct tggctgggtt ggggtccattg tgtggctgca 240
 atataatcaa gtggaggaca gctgtgatga gactggggga tgctgctgtt gggggagttg 300
 gccagaccc cagggcagca aggccagctc tagtcacacg gattaatcag gcaaggcccc 360
 tcatctgctg ttgaacatgg gcgcgtggaa gcaccggctt aggaacaggc tggcgccgag 420
 acggatgctt gaacgcttct atggaggctg gagggctggg ctggggacgg caagggcccg 480

ggtgctgagc tgagcactga caggctttgc ttccctttgt gttttctcac ttctgtgcgc 540
gtaggcgag gtccgggcat ttaccttggt ttggtttggt gataattccc ttcacaatc 600
tgcagcgact gttttctggt tcatgggctt ccgggtaagt tgcttggtgg atgacctggt 660
gtatttaatt tactgggctc tgactctgca aaggcgcta aatgctatgg gctacggtgt 720
tcagaactgg gttctggagc cccaggaat ccagcaagt gtgttgctac cagaattcct 780
tctcttcctg ttctttttgt ttctgattcc taagccccct caagtcacat agaggaggct 840
atttgccaaa ttgtgtgagc ccattagtat gtcaatcatg ataccttcca agtgcttgcc 900
gctttgtaca ttccaaaaca ctttcatgca aagcaaccct tggaatgggt ttagaattcc 960
tgttatatag attggaagat atttttatatt ccatttcata cattgggaaa ctgaggctca 1020
aaggccataa cacaggagag gcatagaaaa agtctcgctc caggcctctt gacatgtgag 1080
caagtgcctt gccggacata tgtgtcttct ccctggattt tcattaattt tttggaaact 1140
tggtattgtc attgagtgag ctgaggtggt gagggaggct tactcttgct ctttaacatt 1200
agcttttcaa taatgctgaa gatgatgatg ataatgacaa atcgcctata agatatgccc 1260
attcagaagt ctcttggtga gttcccagca tttcaaggaa ttcattaaaa actgacatga 1320
accccagggtg acctcaggct tcctaattgt ccaatcattc atctaaggaa acagaactaa 1380
attacttgta cctgaaagaa agccttttgc aaaacaagag tatatacgca ctctcaccgg 1440
agcccagcag ttacattcaa cgggtggcagt tattataaat ggctatatct ctacggcaac 1500
cctggagaaa gaaagaaaat tgtgcaacca atttaatgag gtgtgtgtgt aagagggatg 1560
gtagcaatt tgtctttaac aatcttggtt tacagcaaga ggctctaagg ggaaagagag 1620
aaagagagag accgggagtc aatgctctat tttctaacaa ttctcaagag agaggagata 1680
aagaccaaga gaattcactg agcaaattgt ttctttgtgg caacaaatgc aggcttcgtg 1740
cttgcagaac cactaggcac tatgtaacga gaagggttat aaatctggat gtaacgaagg 1800
tttcacccca gtggtaatag agttagaggg tgaaagggtg catcttggtc aaccttctct 1860
ggaatcgttt tctataatgc tggcaagtaa ttttgtggca tttctggatg cttactgaa 1920
taaaaagaaa tacttatttg gtactggaac cactattagc aaggtgggca gttgagaatc 1980
tacctaagta tccagtaatg ttaaaatgaa atggcagaaa accattttta ttgcatcatc 2040
tagtgcctct agacatgtgg gcacttggtt tcccgttggt gacacacat atggagagat 2100
atttaattgg gcacttttga aaagagagcc cctctcaaca gggactacat cttgggcttg 2160
tgcttagaag acattcagct caagagctgc cctgggtgcac atttctctg cccctttggt 2220

tgcctttagg ttcacatcaagt tctaattagt tattctttag ttaattcaga aatgaaacct 2280
ttattgagca attactatgt ttctggcctt attctagatt caatgatgtt tagaaagatt 2340
tttacaacac agtttgctgt tagtctagac tttttgctcc ccagtgaag ggaacttttg 2400
gcagcatcaa gaggtaatc agtaggattc tatctcttca acttcataat ctccattgtt 2460
tcccaaaacc aattctaata ttaaaaacaa tacaatgttt tatcaacgtt aagatgcctt 2520
ctattgttaa aaaaaactgt tattttatgt accacttgca taaagaaaaa atatctaaga 2580
tgggagggtct aataggagac ctcttcatag gcaggacacc aaagagctac gcactcgggtg 2640
aaaggggtaa ggaaaattct ccagcagggc cagcaaggaa acttgcatgt ctcagccttg 2700
ggcctctgca gaggaagaa aatacaagtc tctgtgagaa tctgagccat aatctaatac 2760
agatggagca tccttaatct gaaaattcaa aatcctaat tctccaaaat ccaaacttc 2820
ttgagctcca acatgatacc acacgaggca aattctacac cggacgtcac acaataggct 2880
ccagtcaaaa tggtatcaaa actgttttgt gtacaaaact attaaaaata atgcagaaaa 2940
ttaccttcac actgtgtgtc taagggtgtat aggaaatgaa ttttatgttt agatttgagt 3000
cccactcca agagatctca ttatgtatgt acaaatttc cagaatctga aaaaatctgc 3060
aaagcaaac actcctggtc ccaagcattt tggaaaaggg acactcaacc tgccaacctg 3120
tagtcacaca ggtctaaagt ctgaatttac accattgggtg gggccaata attctcaagc 3180
agagaaatca atttcagtg ggcttaagta agtttggcag aaacaaatgc agaactcttt 3240
ctggaagaat tcgacttcat ttcaagccca cagattataa aaacgtattg attacgtgat 3300
acactctgat tttagggtt atgaaaatgt gagaataatg tgcattctag aattgatgaa 3360
cagtgatagt aataataatg cttttcatga ctagtatatt aatataattt tatgtaatta 3420
ttattctttc catttgctat ggacagtga atttttctga atcttctgta aactgtgaat 3480
aaaagcattt taag 3494

<210> 1389

<211> 3457

<212> DNA

<213> Homo sapiens

<400> 1389

gcttacctac tgccttctcc gaccgtccgt cctcggggca ggcgtgctct cttccctgag 60
cttttagggg ttggcttttc cagtccaga tcagctacag caaacatcgt tcgagatgtc 120
ccaccaagag ggcagcacag gtggcttacc agacttagtg actgaaagcc tgttcagcag 180
cccagaggag cagtctggag tagcagcggg gacggcggcc tcctcagaca ttgaaatggc 240
agccacagag ccatcgaccg gagatggtgg tgataccagg gatggtggtt tcctgaacga 300
tgccagcaca gaaaatcaaa acacagactc agaaagtcca agtgaagacg tcgaacttga 360
aagcatgggt gaaggtttat ttggttacc gttagtggga gaggagacag aaagggagga 420
ggaagaagaa gagatggagg aggaagggga ggaggaagaa cagcctcgga tgtgtccacg 480
atgcggtggc accaaccatg atcagtgttt gttagacgag gatcaggcgt tggaggagtg 540
gatttcctca gagacatctg ccctgccccg atctcgctgg caagtcctta ctgctcttcg 600
ccagcggcag ctgggttcaa gtgcccgtt tgtatatgag gcctgtgggg caagaacctt 660
tgtgcagcgt ttccgcctgc agtatcttct tggaagccat gccggttctg tcagtaccat 720
acactttaac cagcgtggca cccgactggc cagtagcggg gatgacttaa gggatgatgt 780
gtgggactgg gtgcggcaga agccagtact gaactttgag agtggtcacg atattaatgt 840
catccaggct aagtcttttc ctaactgtgg tgattccact ctggccatgt gtggccatga 900
tggaacaggta cgggtagcag aactaattaa tgcacatata tgcgagaata ctaagcgtgt 960
ggccaagcac aggggacctg cccacgagtt ggctctggag ccagactctc cttataagtt 1020
cctcacttca ggtgaagatg ccgttgtgtt caccattgac ctcaggcaag accggccagc 1080
ttcaaaagtt gtggttaaaa gagaaaatga taagaaagtc ggactgtata caatctctat 1140
gaatcctgcc aatatttacc aatttgcagt ggggtggacat gatcagtttg taaggattta 1200
tgaccagagg agaattgata agaaagaaaa caatggagta ctcaagaaat tcaactctca 1260
tcatctgggt tatttgtatt tcccaacaaa catcacctgc gttgtgtaca gccacgatgg 1320
cacagagctc ctggccagct acaatgatga agatatttac ctcttcaact cctctctcag 1380
tgatggtgct caatatgtta agagatatata ggggcacaga aataatgaca caatcaaatg 1440
tgttaatttc tatggcccc ggagttagtt tgcgtgagc ggtagtgatt gtgggcacgt 1500
cttcttctgg gagaaatcat cctcccagat catccagttc atggaggggg acagaggaga 1560
tatagtaaac tgtcttgaac cccaccctta cctacctgtg ttggcgacca gtggcctaga 1620
tcagcatgtc aggatctgga caccacagc taaaactgcc actgagctta ctgggttaaa 1680

agatgtgatt aagaagaaca agcaggagcg agatgaagac aacttgaact atacggactc 1740
gtttgacaac cgcatgcttc ggttcttcgt gcgtcacctg ttacagagag ctcataacc 1800
cggctggaga gatcatggag ctgagttccc agatgaagaa gagttggatg agtcttcag 1860
cacctcagat acatccgagg aggagggcca agatcgagtg cagtgcatac catcctgaag 1920
gcctcatatc cagtccagct agatgccacc taagtacact ggactttaaa attcagtttg 1980
actaatntag aattgtcaat tgattaacag atttgctttt tgtcttctgt tttgttacc 2040
ccttatatga gtgcatacac aacttattta tgcctctttt cctttgttcc cttataattg 2100
acctctaaaa ttgcataatt ttgttgaaaa aattaatggc cttattagat gtatctactc 2160
atttcagaca ttctgaaagc tattactttt tagttttttc attttttacc aatttatttt 2220
gaagataaag ttcttcagtt gagttgaaaa ttccataaac gtgtttattc tttagaggta 2280
aaataaggca aaccatagtt ctttgaatac tgacacacac atacacacag tctcagaaaa 2340
ggaaaagaga agtagtgtgt agattaattc ctaacacttg gccacacaca cacacagctt 2400
caaaagtgtg agtaacaaga gagaagaata agaaagtggg actgtataca atctctatga 2460
atcctgccaa tatttaccaa ttcgcagtgg gtggacatga tcggttttta aggatttatg 2520
accagaggag aattgatgag aaagaaaaca atggagtact caagaaattc actcttcac 2580
atctggttaa ttgtgatttt ccaacaaaca tcacctgcat tgtgtacagc cacgatggca 2640
cagagctcct ggccagctat gcacacacac atacacacag agccttagaa aaggaaaaca 2700
agaagtagtg tgtagatgaa ttcctaacca gataattcat ctctcagag caaataactt 2760
gggattatcc acattttctg aatcaatatg ttaataatat tgattaattt gagcacactg 2820
aagctggtaa gaactaaatt aaatttaatc acatgacatt gtttactcta tgcattaaat 2880
gttcttgaag ttttatggtt gggaactccc acaggattac attccaggaa gtcctcctgg 2940
cgcaagcatc tcctataaga taccagatag gaatataaaa atctctcata tttgaaaaca 3000
tttattttaa ttaactttta agaataagtt gcaataaaaa ttgtttatac ttacacataa 3060
ccatttgata cagttggtag aaaaatccta tttaacatcc atgcattgct taaaatttag 3120
ctgttttatg agtttgtttt gaaaattggt gcaataaaaa ttgtttatac ttacaagtga 3180
tgtagttggt agaaaaatcc tatttgacat ccatgcattg cttaaaattt agctgtttta 3240
tgagtttggt ttaaaaattg ttgcagtaaa aattgtttat acttacaagt gatgtagttg 3300
gtagaaaaat cctatttgac atccatggat tgcttaaagt tctctcagct gtcctcgagt 3360
ttaaattggt ttaaaaattg tcttaagctt tacttaatat aaatttaagt tactagatgt 3420

taaattactg ttcaataaaa atattcattt ttatttt

3457

<210> 1390

<211> 3397

<212> DNA

<213> Homo sapiens

<400> 1390

agtcccagct ggatctccgg ccagagcccc aggctgctgc gccgggcggc tgcagcctcc 60
gctccagcgc ccgcgccgtg ccctgcatcc cgggagcccc gctggaccgc cggcggctcg 120
gccggttgct tctccggtgg ggagtgagcg agcacacagc cccacccca ccccggtga 180
gagagaatgt cctgcacagg gacgcccagc tgtatctacc tgctgtcagc actttctctg 240
cgggacctgg tgctggactg ggagccccga ggtgttcccc ctcccctccc tggggcagca 300
gccaccatgt tctcgtgtgt gaagccctat gaggaccaga actactcagc cctgaggcgg 360
gactgccggc gcaggaaggt gctcttcgag gacccccctt tccccgccac tgacgactca 420
ctctactata agggcacgcc ggggccccgc gtcagggtga agcgacccaa gggcatctgc 480
gaggaccccc gcctctttgt ggatggcatc agtcccacg acctgcacca gggccagggtg 540
ggcaactgct ggtttgtggc agcctgctcg tcaactgcct cccgggagtc gctgtggcaa 600
aaggtcatcc cagactggaa ggagcaggaa tgggaccccc aaaagcccaa cgcctacgcg 660
ggcatcttcc acttccactt ctggcgcttc ggggaatggg tggacgtggt catcgatgac 720
cggctgcccc cagtcaacaa ccagctcatc tactgccact ccaactcccg caatgagttt 780
tggtgcgccc tagtggagaa ggcctatgcc aaactggcag gctgttacca ggccctggat 840
ggaggcaaca cagcagacgc actggtggac ttcgcgggtg gtgtttctga gcccatcgac 900
ctgaccgagg gtgactttgc caacgatgag actaagagga accagctctt tgagcgcag 960
ttaaaggtgc acagccgggg cggcctcatc agtgcctcca tcaaggcagt gacagcagct 1020
gacatggagg cccgcctggc gtgcggcctg gtaaagggcc acgcatacgc cgtcactgat 1080
gtgcgcaagg tgcgcctggg ccacggccta ctggccttct tcaagtcaga gaagatggac 1140
atgatccgcc tgcgcaaccc ctggggcgag cgggagtgga acgggccttg gagtgcaccc 1200

tcggaggagt ggcagaaagt gagcaagagt gagcgggaga agatgggtgt gaccgtgcag 1260
gacgacggtg agttctggat gaccttcgag gacgtgtgcc ggtacttcac ggacatcatc 1320
aagtgccgcg tgatcaacac atcccacctg agcatccaca agacgtggga ggaggcccg 1380
ctgcatggcg cctggacgct gcatgaggac ccgcggcaga accgcggtgg cggctgcac 1440
aaccacaagg acaccttctt ccagaacca cagtacatct tcgaagtcaa gaagccagaa 1500
gatgaagtcc tgatctgcat ccagcagcgg ccaaagcggg ctacgcgccg ggagggaag 1560
ggtgagaacc tggccattgg ctttgacatc tacaagggtg aggagaaccg ccagtaccgc 1620
atgcacagcc tgcagcaca ggccgccagc tccatctaca tcaactcacg cagcgtcttc 1680
ctgcgcaccg accagcccga gggccgctat gtcacatcc ccacaacctt cgagccaggc 1740
cacactggcg agttcctgct ccgagtcttc actgatgtgc cctccaactg ccgggagctg 1800
cgcttggatg agccccaca cactgtctgg agctccctct gtggctacc ccagctggtg 1860
acccaggtac atgtcctggg agctgtctgg ctcaaggact cccaacagg ggctaactct 1920
tatgtgatca tcaagtgtga gggagacaaa gtccgctcgg ctgtgcagaa gggcacctcc 1980
acaccagagt acaatgtgaa aggcaccttc taccgcaaga agctgagcca gcccatcact 2040
gtacaggctt ggaaccaccg agtgctgaag gatgaatttc tgggccagg gcacctaaag 2100
gctgaccgga acaacctcca ggccctgcat accctccacc tccgggaccg aaatagccgg 2160
cagcccagca acctgccagg cactgtggcc gtgcacattc tcagcagcac ctccctcatg 2220
gctgtctgac acctgcccac ctacctggct ctgaccgttc ccaccacat ctgcatgtcc 2280
ccactgggcc tgagtctagc ctgggagcca ggatactggg gtccttttcc cactcttcca 2340
ctgacttgct gtgtgacctt aggaagtctc tgcccctctc tcagcctcag tgtcccgagg 2400
gccccgaagc attccattct cgtggaggag ttctcttgct gagatttcaa atagtctcc 2460
ccacctcaac tgtcaccact gctaaggac tctatccatt gagcacattt tcctaaggcc 2520
ctgctgtctg ccgaggagcg ccaagaagat gtcacttggt tacacacgaa ctgccacatc 2580
cccaagctcc gttcttgccc ctctgtctct aggcccaacc cagcctcca gacctcactt 2640
tccccatcag caatactgg tgttctccca ccttgaaagg actcttggct cctgccgggt 2700
tcctgtcag gctggaattg ggaaaacatg caggtgacat ttgttcattc tctaattcca 2760
tcctctcacc catccatttc ctactcagt ggagatttgc caaatgaata aacgacacct 2820
ttgaggcccc aggtgaagcg gggccctact ccggcctctg ccttgggcct cgcctctgtc 2880
ctcaggtcct ctcagaggca gatactagg ggagctgctg ctgcctgctc attctagctt 2940

ccgattccat tcccagcccc tgcgttaagg tccctggaga ggtggcgtca gtgggggtga 3000
 ggaagggcat cttcctgact cctctgcccc gtgctggaag gagcatgcct gggttagtgg 3060
 gccagggggc aggcagctgg gggccttttg ggaccagaag gggagatgtg ctcccagagc 3120
 ctctctgctg taagacccca gcttttcttg gaagatggga ctctggggtg tgtggtgctc 3180
 accagagtca ggccaccac tgggctcggc aggagatagg ggagagcaat tactttgttc 3240
 actgtatgca cccgcggggg cctgggagtc cccatttgca ggtgggtagg gcctccagcc 3300
 cacaccaccc agacctaggc ttccctcttc tcaggatcca ccacagggtt aggggacagg 3360
 aagcctgttc tattctcaat aaatcttaca aaattcc 3397

<210> 1391

<211> 5004

<212> DNA

<213> Homo sapiens

<400> 1391

agagcattgt tggaaggatt agaggagtca agatatggaa ggcccacaga atggttgggg 60
 agaaaagcca gcttctggag gcaggggaaa ggggtggggag tggctgggga agcagggcct 120
 gtaccctggg tttctgcatt ggggttactc ctttctgctg gggagtata gcaggggtgat 180
 gagagccacc ctgggcctgc gtcctcctg gtcattgctg tgcctgggt cccaggggtgc 240
 ctgggaaagg gcacacagct ttactgatgg gtggccagtg gggagtgcc ccatcgggca 300
 ttccaccagt cggccccgat ggtcctggcc tctcatgtt tatctggccc agggacacca 360
 aggctcagag aggtaaactt gcccagggtc acacagctag gagggggagc tgagtcatca 420
 cccaggtttg tctgccccag ggctggagct ctgttttcag gccacctgac cagctgagga 480
 gatcgtcaga aaggctggga caccaacgga tgacgcacaa atggaggaat tttcaggcac 540
 ggtcaaagct aatgggaggg aaaatactga agtgtaatat tccagagttc tctcttgtct 600
 gctctgactc ctgccagctg ccctgcacct agaggggacag gaggtctctc tccggggcat 660
 tgcattggccg ggagccaaat gagctggcac cagaacctgg tgagttgcct ggcttttcag 720
 acctcagcct cctcacctgt gaagtgggtt gaacagctct tctctgcaga ggagctgttg 780

agggcggtat ggaacactgc caggcacaca gttggccctt gacaaaacca ttgctgtgtc 840
cccagcctgt ttctcccaa gtccattga tggttctctc tatccctgtt tcctcagaag 900
gtcaggtttt ctaagcccga aggcttggag ccaggcagga gctgtctccc tctccagtgc 960
tgccgactca acccttttcc cttagaagca gggaggagg ctccccttgg ctccctccct 1020
ctgcagccct ggctctgcgc cctgggaatg ctgcctgggg cagggccacg tagagagcag 1080
ggccagtga ggcctttggg tgttcccagt ggccaaagtc ctttagtctg ctttcctttg 1140
ggcccccttg caccctgaa tggatgacct gggggattcc aagtcggttt gggaggggtg 1200
acagcacaag gctggagggtt gggagagtct ggctgtcatc ccagcttga ttgtagtctg 1260
ccatgtgacc tttgggcaa agataaatcc tccctgggcc acagtgtccc tgctggtcag 1320
atgaaagaat cagatgagat catttctgag gatctttcca ggcttcatat tcttctgttt 1380
gattatcccc ccaaataaat tggaaattgg aggcccaagg atgagccctg gttgaggacg 1440
cagagcccag gggccgtccc atcctccaca cttggcccag ttgtgagtgg gggaatggga 1500
tttagcacct gaagccccag atttaaatat atccccactc cccgccgggg tccccgact 1560
cctgcacctc cctctccca ggacggccct gacctgcagg cattgttccc cgcccatgcc 1620
caagccccga gggaattcca tcgggttga gagtcttccc ttctgtaggg ggctttgctc 1680
ctctctacca gttatgtgac cttgggcaag tcaattcagc tgcctgacct cagctcccta 1740
ggactagttg aagtaatgga tataaacacc ctttggggac caaaagcccc tagagagatg 1800
agacctggcc caggcagtaa gtcttcaaca aatgtagaat aggaggatgc tgtaaacaag 1860
ccagccaaaa ccaccaaatt cccttgggtgg aggataaggg acatttgaga cagtctttat 1920
acaggagtct cgggccccag gaagccaggg cagagagtct ttgccaaact tccccctgcc 1980
taacaagaag gaaactgagg caggaccctg ccagaccag aggcaaacag gctgcctcc 2040
tgtgaacttg ttgggggtca tttccacaag ggaatagttc tagaagacca gggtagtca 2100
gtaacaatgg cagaattcca gtcagaggaa gaagactttg gtgtagctgg ggctggagca 2160
tagaggagcg acttggctgc cgccctggcc ctgtgtcaga ggtgttagaa ccagagccac 2220
tccatcttga gtaggagctg ggtaaaatag ggctgagacc tgctgggctg cattcccagg 2280
aggttaggca tttttagtca caggatgaga tgggagtcgg caggactggg atcataagat 2340
acaggtcata aataccctgc tgataaacag gatgcgctaa acaagccggc caaacacac 2400
caaatccaag atggtgatga aagtgatctc tggatcatcct cactgctcat tataactaa 2460
ttataatgca ttagcatgct aaaagacact cccaccagca ccatgacaat ttacaaatgc 2520

catggcaatg tccagaaatt accttatacg gtctaaaagc gggaggaact ctcagttctg 2580
gggaaatctc ccctttcttg gaaaactgat taataatcca ccctttgttt agcatataat 2640
caagaaataa ccataaaaac agccaaccag cagcgctcag gggtggtctg tctatggagt 2700
agccattctt ttgtttcttt acttctctgt aaacttgctt tgacttcact ctgtggactc 2760
acctcaaatt ctttcttggt cgagtccagg aaccctctct ttgggtctgg attgggaccc 2820
ctttccagta ccattttttc tagtgaacca cgaaggagcg ataccagaaa acaccctcaa 2880
cccaaaggaa atagactaca gcccgaattg gctgactttg gctatagaaa aaagaaagga 2940
acgaaaagag acagtttttt ttggaaagct aagtcttccc tttatcgagt caagaaaccc 3000
cccttcttg agctatttac agcttttaac aattgagtaa agtacgctcc ggcctttgaa 3060
tcaagcaaga cccactgga tcaccaaaga gttaagcaaa ggaaatccct gcctcccttt 3120
atctccgcag aaccagagg ctgaaaggga gggagcaggg aggaggggaa gtgggaagcg 3180
gctctgccct ctccctccgc cctccctccg ccctctctcc ctccatccc tctctctcc 3240
ctcctctgct gggcctgggg gtctgggcca gcaacaagtt agtattgcag acatgggcca 3300
aggagccaga ggccatgcag tggctcaggg tccgtgagtc gcctggggag gccacaggac 3360
acaggaacta tgggtgtctc acaccaaagc atgggctcgg ccacccatcc cctctcctga 3420
gaacaagcct ccagaaccct ccacgtttgt ccccagtgtt cactaacctc agtcctcctg 3480
cccggagggc atgtgtttgc tggagatagt ggagtcggtg gcaagaaagt gccagaggga 3540
ggtcaccatg gggacagccg ccctgggtcc cgtctgggca gcgctcctgc tctttctct 3600
gatgtgtgag atccctatgg tggagctcac ctttgacaga gctgtggcca gcggtgcca 3660
acggtgctgt gactctgagg acccctgga tcctgcccatt gtatcctcag cctcttctc 3720
cggccgcccc cacgccctgc ctgagatcag accctacatt aatatacca tctgaaggg 3780
acaggggcag agccgtcaca gatgagtgtg ggcacctcct tggagcaggc tcagatgtcc 3840
accctgactt gtcccccttt tatccccaca gtgggccgca agacggccct gcacagcggc 3900
gaggacttcc agacgctgct cttcgaaagg gtctttgtga accttgatgg gtgctttgac 3960
atggcgaccg gccagtttgc tgctcccctg cgtggcatct acttcttcag cctcaatgtg 4020
cacagctgga attacaagga gacgtacgtg cacattatgc ataaccagaa agaggctgtc 4080
atcctgtacg cgcagcccag cgagcgcagc atcatgcaga gccagagtgt gatgctggac 4140
ctggcctacg gggaccgcgt ctgggtgcgg ctcttcaagc gccagcgcga gaacgccatc 4200
tacagcaacg acttcgacac ctacatcacc ttcagcggcc acctcatcaa ggccgaggac 4260

gactgagggc ctctgggcca ccctcccggc tggagagctc agctgatacg gcacccctgcg 4320
 agaagacctg ccctcctcac tgggatcccc ttcctgcctc ctcccagggc tctgccaggg 4380
 ccttgctcag tcccttccac caaagtcac tgaacttccg tttccccagg gcctccagct 4440
 gccctcagac actgatgtct gtccccaggt gctctctgcc cctcatgccc ctctcaccgg 4500
 cccagtgtcc cgactctcca ggctttatca aggtgctaag gcccgggtgg gcagctcctc 4560
 gtctcagagc cctcctccgg cctgggtgctg cctttacaaa cacctgcagg agaagggcca 4620
 cggaagcccc aggccttaga gccctcagca ggtctgggga gctagagcaa aggagggacc 4680
 tcaggccttc cgcttcttct tccaggggtgg ggtggcctgg tgttccccta gccttccaaa 4740
 cccaggtggc ctgcccttct cccagagggg aggcggcctc cgccattgg tgctcatgca 4800
 gactctgggg ctgaggtgcc ccgggggggtg atctctggtg ctcacagccg agggagccgt 4860
 ggctccatgg ccagatgacg gaaacagggt ctgaccaagt gccaggaaga cctgtgctat 4920
 aaaccaccct gcctgacct gccctgcct gaccccgcca cgccctgccg tccagcatga 4980
 ttaaagaatg ctgtctcctc ttgg 5004

<210> 1392

<211> 3985

<212> DNA

<213> Homo sapiens

<400> 1392

aagaagaagg ttttgacaga agctgatact ccaagcaagt ttgacccaat taattatttg 60
 ggggaatatt taataagaaa caatcctaata tatatcaaag acccaggaat gtctgggttac 120
 cagagggtga tgaaagaagt cacagaagac ctgaagatat atgttctga cactatctgc 180
 aacagagtat ccaagatgaa ggagaatgtt aaacagaata gaaaacaaag agaaagcata 240
 gacaaaatca aagtcaaggt ggccaacaca cggaacagg ctctgcagga gcaattcgat 300
 gaatggattc tagaccctaa aggaatgatt cctaagtcag tgattcagaa tgttcttcaa 360
 gaattctttc aaaatccaga tttcaagctt ggatcacact gcaaacaact ggatattact 420
 gactcaacag aaccaagatt gaacaaaatg gaatttacag aatacatctc ttcacatatt 480

aaagacttga agagtgaat gtttgaggaa cttcttaagc acctttgcca ctctgcagat 540
gaatttcggg aggtcataaa agctgacatg cggaggcaga tgttcgctga actcttccta 600
cattgtgacc acgggaaggt agggtttttg gatcggcaga ggacattggc cctgctggaa 660
ttgttctatg accatagttc acaaagtctt aggagtttac ttcaaaacc acgacaatgg 720
ccattcattg aatttgaaga gataaacttg actgagttgt ggggagacat ggataatcag 780
aaacacattt atgaaggttt tgacaaagtg ctcttggaga tgaatacatt actttctgca 840
aatcatgcta gcaaaacca aagtaaatta ttagaaagtc cagatcaacc taaacttaac 900
gaacagagaa catcaacacc atcaccaaac cggccagaac agcagagagg agtaactgca 960
gaacaaggac cacaagaat ttcaattgaa gaacaacaac aaggcaaaaa gccaaactgca 1020
gagcaagaac tgtacataga atcagtaata gaaccaggaa cacacacaga gtcaactcta 1080
gaacaagggt caagtagaag gttactgaca gaacaagaaa cacacagaga gtcaactaca 1140
gaacaaggac agcacaagg gtcaatagaa ggacaaggac cacgcagagt gtcagtttca 1200
gaacaaggat caagcagaga gtcagttgca gaacaagggt cacgcagaga gtctattgca 1260
gaacaagatc gacacaagg gtcagtagca gaacaaggat cacgcagaat gtcagctgca 1320
gaacagggat cactcagaga gtcagtaata gaagaacat accaaaaatc agaacaagga 1380
ccttatggag agataatttc agaagagcaa gaagacatag gctcaacttc acaatcaaga 1440
aaagatagta tcttaaaaag taaaaaatat ggggaacct aacctctga gtacattgaa 1500
gtccctctac aggaaaagag gtcttgggaa caaacatatg aagaggaaat attcctgagt 1560
tctgaactgc aagaggaagt tccaacgtta agcagaaaag atcactttcc agaaactaca 1620
aaaaaggaag ttcagaaaga caagccctgt gaacccaagt ccaaaaaat agaaggaaag 1680
tcatggtcag gtgaattttt tacttgtaac tggaaaatga agtatgtcac atttgaagat 1740
gaggaacagg caaacttaat ctatggtaac tccaggttca cagctaaact acacatccaa 1800
tttccaaagc cacaccctgg tcacgaagtg agattgtctt caaaacaatt tcagaattac 1860
atagaattgg ttgtgtctga actcaggggc aatgaagacc aagttctgga aagtgttgtg 1920
gaatttctga ttaatgcttt agagaggagc cacattgaga gtctgaggaa ttctgccagg 1980
cggaaatggc tgcaccaa at ccaatgtgct gcagagacaa gtggggtgtc cctagagccg 2040
gtgtatagt agacctttaa ggccctcatg caggatgctg aagcccatgg aaataaaaag 2100
atcagtgtc acatttcct cttagaagaa aacctactac tgcctgagaa agggaatgtt 2160
ctattgagga atgtggcttg taccttagat gatgctcaat ttgtactgaa cagagtgtc 2220

tacagggaca tgaaaggaat cagctttaca gtagtggatg aagggaagcc aatccatggt 2280
ccccaagtgc agtaccatgg gaacatcttc ttctggaacc agtcccgtaa taagcatgat 2340
tataatgggt cattcctggc tctgcctctt caagatgcat atatgaggat ctttgggggtc 2400
ttggctgttg atacccttag agatccccac gaaataaaca tctttctacc tcatgagatc 2460
agattctatc aggggtgttg taatgtcttt agcactgcct atcactacgt ccacagccgg 2520
gagcacattc tgcataattgt gatcactggc ataggctggc tttatgacgt cacatccagc 2580
atcacctcca tcaactacgta ctttgtagag cctagcccag cccaggattc agactatggt 2640
ttacgcaaca tgatgggttac agggcagctg ggtctaacag aaatccacaa aaatcctcct 2700
accatccaca ggaagtcatt catcttcaga gatttcctct ttaaattgtac tgacagttca 2760
gaagttgttc tggcttctgc ctgtggagaa acgcatatag tagttccact tcgtgagaga 2820
acaggagagg ctctgggagt cctcgatttt aacatcggcc aaaataggat gttgttgtgt 2880
caagaatata aagatctaca gaaaatgatg aaagtgggtc aagtggcctg ctatgaaata 2940
cttggcgagt tctctggaga gataaagaaa aaatatatct tagagattga aaatgtcagg 3000
gaagtccagc gggcaggaat tctcttcttc cgaatcatgc tgctcgagct acaggaaagc 3060
atccaactac tcaattccat ggaatttgtg tcaactgttg tctatgacca tactcttgta 3120
acagagccaa attctcctca agacagcaaa tctatggagt tggaagccaa cgtgaaacta 3180
gtgcgtgaca tcctgaaggc gggtatcttg ttctttcatc cagagttgga attttcaagt 3240
gactttggaa gttgggataa gtgtaaattt tatgttaaca aatatttagt caacaatatt 3300
tgtgcctttg atccaactgc caagcatgtg gaagttaatg tacagcttat tgatgaatat 3360
atcagagatc attcccgaac tgaagtatgg aaatttggtg atgttgtcat tgaacatcta 3420
taccactgga tacacatctg ttcagctctc atgaagataa ccaaacact aaatagtggg 3480
attacacctc cgttgccctc caagactgac aattatatgt atgcaaaaat gccaggggaa 3540
ggtttgcaag agaagtgata atggatgata atggaattga tactgtattt aggatccttt 3600
gtttgttatt agttttgttt gttaactata aaatatcttc cattggaaaag gggtacctat 3660
aaatgtcttc tgctgctaatt atttatctca gcactttcta aacccaaaag tgctacctaa 3720
gaagaaattt agccaaaaaa taccagcta aggtagccat agccaagtgt atttaagtat 3780
gttatagaat atatttgaag gcttcctttc agtttgagct ttgtatctgc tgtggaactg 3840
ttatggttga ttgggtagtt attttctatt ctataaggt tcaaagtaac agctgaggat 3900
ttagaaaaca agaataccaa atagaatacg aaataataaa gataaaccaa aagaatacca 3960

aataataaag atttttaaga aatgg

3985

<210> 1393

<211> 4576

<212> DNA

<213> Homo sapiens

<400> 1393

aactttggct cagcctgtct tcatccactg tatectgaca cctctcctac tccttctctt	60
taatgtacag ctgagactgg gataccctta gactgaaagg aaggacacgg ctatgtagaa	120
aagaattgac tgaaggggag gagtactcgt gaacccttg cttcagcctc ccaatgttct	180
gagagaggag gagccaggcg cagtggctca tgcctgtaat ccagcactt tgggaggttg	240
agatgggcag atcgcaaggt caggagatcg agaccatcct ggctaacagg tcacattcag	300
acagcacacc ttgcccatt tttctttctg gatctcaccg tcctgagtgt tgtacctgca	360
ggttgctcac agcctctgga gcccaagata gtctccctt tgggaggagg ctctacagt	420
gtccctggcg aagttgtgaa gaggtctgcc acgtctctgt gctcagtgtc ctctctacat	480
cctgtggctt gagcctgagc ttgcccata tccctggctg gatggagtgg ctaagccctg	540
atatcgctct gcccagaaga gatgagtggga ctcaaacttc tccagccagg aagaggatca	600
cgcatgccaa agtccagggt gcaggtcagc tgaggctgtc cattgatgcc caggaccggg	660
ttctgtctgt tcacattata gaaggtaaag gcctgatcag caaacagcct ggcacctgtg	720
atccgtatgt gaagatttct ttgatccctg aagatagtag actacgccac cagaagacgc	780
agaccgttcc agactgcaga gaccggctt tccacgagca cttcttcttt cctgtccaag	840
aggaggatga tcagaagcgt ctcttggtta ctgtgtggaa cagggccagc cagtccagac	900
agagtggact cattggctgc atgagctttg ggggtgaagtc tctcctgact ccagacaagg	960
agatcagtgg ttggtactac ctctagggg agcacctggg ccggaccaag cacttgaagg	1020
tggccaggcg gcgactgcgg ccgctgagag acccgctgct gagaatgcca ggaggtgggg	1080
acactgagaa tgggaagaaa ctaaagatca ccatcccgag gggaaaggac ggctttggct	1140
tcaccatctg ctgcgactct ccagttcgag tccaggccgt ggattccggg ggtccggcgg	1200

aacgggcagg gctgcagcag ctggacacgg tgctgcagct gaatgagagg cctgtggagc 1260
actggaaatg tgtggagctg gcccacgaga tccggagctg cccagtgag atcatcctac 1320
tcgtgtggcg catggtcccc caggtcaagc caggaccaga tggcgggggtc ctgcggcgggg 1380
cctcctgcaa gtcgacacat gacctccagt cccccccaa caaacgggag aagaactgca 1440
cccatgggggt ccaggcacgg cctgagcagc gccacagctg ccacctggta tgtgacagct 1500
ctgatgggct gctgctcggc ggctgggagc gctacaccga ggtggccaag cgcggggggcc 1560
agcacaccct gcctgcaactg tcccgtgcca ctgccccac cgaccccaac tacatcatcc 1620
tggccccgct gaatcctggg agccagctgc tccggcctgt gtaccaggag gataccatcc 1680
ccgaagaatc agggagtccc agtaaaggga agtcctacac aggctgggg aagaagtccc 1740
ggctgatgaa gacagtgcag accatgaagg gccacgggaa ctacaaaac tgcccggttg 1800
tgaggccgca tgccacgcac tcaagctatg gcacctacgt caccctggcc cccaaagtcc 1860
tggtgttccc tgtctttgtt cagcctctag atctctgtaa tcctgcccgg accctcctgc 1920
tgtcagagga gctgctgctg tatgaaggga ggaacaaggc tgccgaggtg aactgtttg 1980
cctattcgga cctgctgctc ttcaccaagg aggacgagcc tggccgctgc gacgtcctga 2040
ggaaccccct ctacctcag agtgtgaagc tgcaggaagg ttcttcagaa gacctgaaat 2100
tctgcgtgct ctatctagca gagaaggcag agtgcttatt cactttggaa gcgcactcgc 2160
aggagcagaa gaagagagtg tgctggtgcc tgtcggagaa catcgccaag cagcaacagc 2220
tggcagcatc acccccggac agcaagatgt ttgagacgga ggcagatgag aagagggaga 2280
tggccttggga ggaagggaag gggcctggtg ccgaggattc cccaccagc aaggagccct 2340
ctcctggcca ggagcttccct ccaggacaag accttccacc caacaaggac tccccttctg 2400
ggcaggaacc cgctcccagc caagaaccac tgtccagcaa agactcagct acctctgaag 2460
gatccccctc aggcccagat gctccgcca gcaaggatgt gccaccatgc caggaacccc 2520
ctccagccca agacctctca ccctgccagg acctacctgc tggtaagaa ccctgcctc 2580
accaggaccc tctactcacc aaagacctcc ctgccatcca ggaatcccc acccgggacc 2640
ttccaccctg tcaagatctg cctcctagcc aggtctccct gccagccaag gcccttactg 2700
aggacaccat gagctccggg gacctactag cagctactgg ggaccacact gcggccccca 2760
ggccagcctt cgtgatccct gaggtccggc tggatagcac ctacagccag aaggcagggg 2820
cagagcaggg ctgctcggga gatgaggagg atgcagaaga ggccgaggag gtggaggagg 2880
gggaggaagg ggaggaggac gaggatgagg acaccagcga tgacaactac ggagagcgca 2940

gtgaggccaa gcgcagcagc atgatcgaga cgggccaggg ggctgagggt ggcctctcac 3000
tgcgtgtgca gaactcgctg cggcgccgga cgcacagcga gggcagcctg ctgcaggagc 3060
cccgagggcc ctgctttgcc tccgacacca ccttgcaactg ctcagacggg gagggcgccg 3120
cctccacctg gggcatgcct tcgcccagca ccctcaagaa agagctgggc cgcaatgggtg 3180
gctccatgca ccacctttcc ctctttcttca caggacacag gaagatgagc ggggctgaca 3240
ccgttgggga tgatgacgaa gcctcccgga agagaaagag caaaaaccta gccaaaggaca 3300
tgaagaacaa gctgggggatc ttcagacggc ggaatgagtc ccctggagcc cctcccgcgg 3360
gcaaggcaga caaaatgatg aagtcattca agcccacctc agaggaagcc ctcaagtggg 3420
gcgagtcctt ggagaagctg ctggttcaca aatacgggtt agcagtgttc caagccttcc 3480
ttcgcaactga gttcagttag gagaatctgg agttctgggtt ggcttgtgag gacttcaaga 3540
aggtaagtc acagtccaag atggcatcca aggccaagaa gatctttgct gaatacatcg 3600
cgatccaggc atgcaaggag gtcaacctgg actcctacac gcgggagcac accaaggaca 3660
acctgcagag cgtcacgcgg ggctgcttcg acctggcaca gaagcgcac ttcgggctca 3720
tgaaaaagga ctcgctacct cgctttctcc gttctgacct ctacctggac cttattaacc 3780
agaagaagat gagtccccg ctttaggggc cactggagtc gagctcagcg ttcacaccag 3840
gcgggctggg tcccctgccc acctgcctcc ctgccccctg tgacggaggg ggcaagcaag 3900
ccccagagg ccgtgtctct ggacagacgg atagacatac ggaagcgagg cctggacca 3960
gagaggccca ggctactgga ggagtagaag gatgggcccc gtgggggtccc cactgccccg 4020
gtacgagggg gcccaagacc ctggcaggtc agggggccctg gccaaaggag atctggagct 4080
gctgctccct gctgcggaga ccgcggaggc ttcgcgttga ccaagttcct taaagaactg 4140
gctgatgggg caggaggtcc aggcctgggc tctcgggccc tcctagaggg ccattggagc 4200
ttgcagctca gacccccact ttgagtttta tttatttaaa tagtagttgg atgcttggca 4260
cgtcgtcctg taataggaaa cccttgccctc atcagttttc ctgatttaca agtgcaatat 4320
tttagccaat gccttgggag aagctgccat gcaaagggtg acaccattct ccagcttcag 4380
gggatatgct cgtcccgggc accggtggca ggcagctggc cttctggact aaggcagcct 4440
ggggggacac tgcagtctgg ctacacacag agatctggca cccctgggt ggagtgtccc 4500
tcgggggctt tgggaaagca tggcacctc agaccacaca gtagccaagt tctggagcaa 4560
ataaaaggcc tgtgtt 4576

<210> 1394

<211> 3392

<212> DNA

<213> Homo sapiens

<400> 1394

```
cttatacctga cattgccctt tcttggtcct ggccccggcc ctgtcccagc cctgttcttg 60
ccctgggtctg aaccttggcc ctgcaatgga cctccttgg tcctaccag accctgttc 120
tggtcctacc tctgccctgg ccataccttt gccctggcct ggaccccggt actggtcctt 180
gtcctgcccc agccgtggcc ccggccccgc cctgcctgtg ccctgttcta tctgggctg 240
gccctgccat ggcttggctt tgccattggc ctgccctagc ctgccctgct tgtgccctag 300
atctgccccg gcctttgccc ctgtcttggg tccagccttg actcagccct ggaccttccc 360
tgaccttgcc tcagccctgg cactaccctg gccttggctt ggcatattgcc ctactctctc 420
tatggcctgg ctctggctct gccctgctct gctcttgttc tgtcctggca cagccctggc 480
cctgccgtat cactggctct ggtcctgccc ttatgcaggc ctgaccgtgc ccctgccttg 540
gctttggcct ggaccttggc cgtacagtga ccctgccatg accctttcct ggccctggcc 600
tggaacttgg ccctgccaag gactcgccct ggctctgtca tggccccggc ctttctcttg 660
atttggatgt gtcctgtccc ttatttgccc cggcccttcc ctggctctgc cataccctt 720
ctctggggta gggccagggt caggaccagg gtagggccat ggtaaggcct gaagatggga 780
agggctgggg cagcggcagg accagggaag ggtcagggcc agtgatgtgg taggactagg 840
ggcagagccg gcactagggc tgagccggag cagagcagga gagattatat taggctatta 900
cataaaattt ttattttaga tttttaagat aactatggta gtggtataaa tgtccatact 960
atgttgtttg taatagtaat aatatttgca gtaaataatc actaaatttt aactaatact 1020
atctttgctt ccagtagtgt tctatgagta caattttatc aatatgtaaa tatgtgaggc 1080
attgattctc acaataattc tatgtgctag gtacttaaag catccccatt ttccaaatgt 1140
aggaaacagg cataaagaag ttaaatactt ggccagatta ctctgtaat cccagcactt 1200
tgggaggcca aggcaggcaa atggcttgag ctcaggagtt tggaaccagc ctgggcaaca 1260
ttgtgaaacc ccattctctac taaaaatgca caaaaagagc tgatttaagt ttctttagg 1320
```

attcttggtta taaaacactg gtcaaacaca ccgggcgtgg atagggcagg gccagggaca 1380
aggctcaggtc aggaaggggc cagggccaag gcagggccag agctggactt ggaggtgtcc 1440
tggtctgatt tgcctgtcc caacgttggc ccagccctgc tctggcactt cctgtcatgc 1500
cctgtccctg gtctgagcat tggccctggc cctgtcctgc ttctggccct gcccagagt 1560
tgaccaggca ctgcatggc ccagtcctgc attgccctgc ctttttctgc cctggtgctg 1620
ccatggccct gcttgggccc tagctctgcc tgcactctgg acctgccctg actctgtca 1680
gccctggatc taccctgact ctgccttggg gttgccctcc catctctatg gcctggctct 1740
ggccctgcct tgcacaggcc atgctctgcc ctgcatgtcc cagcctgggc ccagcccttg 1800
ccctaccata tttctgacct caccgtacc cttgttctgg ccttgacct gccgtggcat 1860
tctcctggcc cttccttggg cctgccctgc ccttccatgc cctggccttt ccctaccct 1920
gcaactggctc tgcctgccc tggcagtgc ttggccctgg ccctgcctct gccttctccc 1980
tggccttgct ctttccctgc cctggcctga ccccaggcct accgagtcca tgaaatgacc 2040
ctggacctgc cttgccatca tctgtcctgg ccctgtattg tccccacat gctctggctc 2100
agcgcttacc ctggccctgt tgctagtcct gccactgcta tggccctgcc ctgtttttgg 2160
ccatgacctg tgctacccta gccgtgcccc gccttggcct tggccctacc gtggccttct 2220
cctaccctgg cctggccgta cactggccat ttctaccctg gccttgcct tccctggtct 2280
tgccctgccc tggccttgcc ctgccctggc cttggctttg ccttatcctg gtccctggttc 2340
tgccctggcc ctgcccttcc tctggatgct ctctggttct gccttctccc tggccctgcc 2400
cttgctctgg ccctgttctt ggctcagcct tgaccctggc cctggccctg acaatcccca 2460
ggccccacac tggccatgct tggccctggc ccctcctttg gccctgccct ggccctgtgc 2520
tatcttagta cagggccttg gccttggccc tgtgctatct tagtcctgcc ctggccctga 2580
acttgccctg gccctacct caccctacac tggccctgcc ctaccctggc cttgccctga 2640
cctggccctg cctttggcct gccctggctc tggttctgcc ctggccttg ccttgccctg 2700
gaccctccct ggccatgttt ttactgtggg ccttctctgg ccttgccctt gcccttctcc 2760
ctttctggct ctgcatggt tctggccctg ccctgtccat gtcctggacc tgactctggc 2820
cctggacctc cctgtccctg ccctgccata ccctggcccg ttccttgctc tacactgacc 2880
ctgccctgcc ttggccctgt gctaccctag ccctgccctg gccttctgct ggccctgatc 2940
ctgcatggc cctggccctg ccatgtccct gccctggccc tggttctgcc ctacttctgg 3000
ccctggcctt ggtcctctta tgtccctggc tgtgaccctg cccctggttt ttctctggcc 3060

atgaccctgc cctggttctg tcctatccct ggccctgtct cagttctgtc ctagccctgg 3120
cctttcacag tactttatgc ttagtaaggg ctccatagtg tctgtgagtt gaatgttg 3180
ttcatagtat ctgccaaaac agaaagaaaa aaaacaaaat ctgaagatga gaagttaaag 3240
ctttgtatat aatatgcctt gaattgtaag tgcttggtat tagttgtatt acatgtaggt 3300
catggttttg tacacataac tccaaacat tgatactgtt aaaagactat atgaatatat 3360
gaaagaatat ataaacgtaa gaatgtatga gt 3392

<210> 1395

<211> 5089

<212> DNA

<213> Homo sapiens

<400> 1395

gttgtcggga tgggggcgga agccaacata gagccctcag tgggatgagg gtgaaactgc 60
tattgccggc ggctcctgtt ttaccgcgtc agcatgctgg tgcatttatt tcgggtcggg 120
attcgggggtg gccattccc aggcaggctg ctaccgcccc tccgcttcca gacatttcca 180
gctgtcagga ggttcctgct tctgcagccg cgtgtcagcc agaaggaggg gacgctcggg 240
gtcagtgacc acgcccagtc cgcactcccg accgggggtc ccctttcctg gccctggagg 300
tactctgatg gctaccgcag ctccctccctc ctccgggccg tggcccacct gcggtcccag 360
ctctgggccc acctccctcg agcccccta gctcccagat ggagcccctc tgccctggtgc 420
tgggttgggg gagccctgct agggcccatg gtactgagta agcatcccca cctctgcctt 480
gtggccctgt gtgaggcaga agaggccctt cctgccagct ccacaccca tgctgtgggg 540
tctcgcttta actggaagct cttctggcag tttctgcacc cccacctgct ggtcctgggg 600
gtagccgtcg tgctggcctt ggggtcggca ctctgtaatg tacagatccc cctgctcctg 660
ggccagctgg tagaggctgt ggccaagtac acaagggacc acgtaggag tttcatgact 720
gagtcacaga atctcagcac ccacctgctt atcctctatg gtgtccaggg actgctgacc 780
ttcgggtacc tgggtctgct gtcccacgtt ggcgagcgca tggctgtgga catgcggagg 840
gccctcttca gctccctgct ccgacaagac atcaccttct ttgacgcaa taagacaggg 900

cagctggtga gccgcttgac aactgacgtg caggagttta agtcacccctt caagcttgctc 960
atctcccagg ggctgcgaag ctgcaccag gtggcaggct gcctggtgtc cctgtccatg 1020
ctgtcgacac gcctcacgt gctgctgatg gtggccacac cagccctgat gggagtgggc 1080
accctgatgg gctcaggcct ccgaaaattg tctcgccagt gtcaggagca gatcgccagg 1140
gcaatgggcg tagcagacga ggccctgggc aatgtgcgga ctgtgctgc cttcgccatg 1200
gagcaacggg aagaggagcg ctatggggca gagctggaag cctgccgctg ccgggcagag 1260
gagctgggccc gcggcatcgc cttgttccaa gggctttcca acatgcctt caactgcatg 1320
gtcttgggta ccctatttat tgggggctcc cttgtggccg gacagcagct gacaggggga 1380
gacctcatgt ccttcttggg ggccctccag acagtgcaaa gacaggtcca tggccaacct 1440
ctctgtcctg tttgggcagg tgggtccgggg gctgagtgc ggtgcccggg tctttgagta 1500
catggccctg aaccctgca tccactgtc tgggggctgc tgcgtccca aagagcagct 1560
gcgtggctcc gttacatttc agaacgtctg cttcagctac ccctgccgcc ccggcttcgt 1620
gggtgctgaaa gacttcaccc tgacgtgcc ccctggcaag atcgtggccc tcgtgggcca 1680
gtctggcgga ggaaagacca ccgtggcttc cctgctggag cgcttctacg accccacggc 1740
aggcgtggtg atgctggatg ggcgggacct gcgcaccctt gaccctcct ggctccgggg 1800
ccaggttgtc ggcttcatca gccaggagcc cgtcctgttt gggacgacca tcatggaaaa 1860
catccgcttt gggaagctgg aagcttccga tgaagagtg tacacagccg cccgggaagc 1920
gaatgctcac gagttcatca ccagcttccc cgagggtctac aacacggctc tcggtgaacg 1980
gggcactacc ctgtctgggg gccagaagca gcgcctggcc atcgcccgag cccttatcaa 2040
gcagcccacg gtgctgatac tggatgaagc taccagcgcg ctggatgcag agtccgagcg 2100
ggttgtacag gaggccctgg accgggccag tgcaggccgc acggtgctgg taattgceca 2160
ccggctcagc actgtccgtg gggccactg cattgtcgtc atggccgatg gccgtgtctg 2220
ggaggctggg acacatgaag agctcctgaa gaaaggcggg ctatacgccg agctcatccg 2280
gaggcaggcc ctggatgccc cgaggacagc ggccccaccg cccaaaaagc cagaaggccc 2340
caggagccac cagcacaagt cctgagaagg gccccctgag tgctgacgag tacagagcta 2400
aatggagcag ctactgcaga atccagtaca gaatcggtcc aggagggtgc ggctgtggac 2460
aggccagcat cccagcagg ttctgggagg cgcacctga aagggaagg cagacatcct 2520
gagtgatggg cgcctgtggc cctgagactg tggatgaggg ggctaggctc cagctggctt 2580
ctgaggggccc tggaaaggca cacaagtagg tccttggctg aactggtgcc ccagcaggac 2640

ctcgtgtccc tgcactgctg cagatgcate agccctcccc atgttggtgc cgctgtcact 2700
tcctactggg atccttcccc tatccagcca catccaggct gtgggactac acgggtgcct 2760
gttcccctgg gcaggagaag aggttggtacc tgcaatgcac cttcacagcc agagaagcag 2820
tgaaaccctt tggctagtcc agctggaaga gctagaccgc aggagccgcg ccgtcttctt 2880
aacctcgcct cggccttcgc tccacagtgg agagtgggag cctagctgtg cttgatgctg 2940
aatgcctgtt ttgagagtcg ccggctcagc accgccggct cagcaccgct ccgcagcccc 3000
tgcctgccac ggtcagctac gtcccacctg gtctgtgtcg gagtccccag cccagtgcct 3060
agcccagtgg agccaccgcc tgttctctcg gaaggaacag tgggacctga ccggccagat 3120
cacctcctcc aatcctgcca ggctagtgcc tccctgcctt ccaaccttgg ctgtctccca 3180
ccctctcttc tcctctctt gcctggcctc ctgaatccta tcttagcctc cttagccccc 3240
tgactgactc tctctcgctt cttccaagcc tctgtagctg gttccgctcc tgggttcttg 3300
ccatgaagcc cacctcaggc ccagaggagg cccggcggcc agcctcggac atccgcgtgt 3360
tcgccagcaa ctgctcgatg cacgggctgg gccacgtctt cgggccaggc agcctgagcc 3420
tgcgccgggg gatgtgggca gcggccgtgg tcctgtcagt ggccaccttc ctctaccagg 3480
tggctgagag ggtgcgctac tacagggagt tccaccacca gactgccctg gatgagcgag 3540
aaagccaccg gctcatcttc ccggccgtca ccctgtgcaa catcaacca ctgcgccgct 3600
cgcgccctaa gcccaacgac ctgcaactgg ctgggtctgc gctgctgggc ctggatcccc 3660
cagagcacgc cgccttctg cgcgccctgg gccggccccc tgcaccgcc ggcttcatgc 3720
ccagtccac ctttgacatg gcgcaactct atgcccgtgc tgggcactcc ctggatgaca 3780
tgctgctgga ctgtcgcttc cgtggccaac cttgtgggcc tgagaacttc accacgatct 3840
tcaccgggat gggaaagtgc tacacattta actctggcgc tgatggggca gagctgctca 3900
ccactactag ggggtggcatg ggcaatgggc tggacatcat gctggacgtg cagcaggagg 3960
aatatctacc tgtgtggagg gacaatgagg agaccccgtt tgaggtgggg atccgagtgc 4020
agatccacag ccaggaggag ccgccatca tcgatcagct gggcttgggg gtgtccccgg 4080
gctaccagac ctttgtttct tgccagcagc agcagggtacc cttccgtgtg cctccacacc 4140
tactacttca agccacacc acctcggacc ctaaaccctc agtcctcag acctgtctag 4200
gggcctctcc ccagtggcc tctcacgctc tccgggaagc ctccttaacc ctgtcccccc 4260
acagctgagc ttctgccac cgccctgggg cgattgcagt tcagcatctc tgaaccccaa 4320
ctatgagcca gagccctctg atcccctagg ctccccagc cccagcccca gccctcccta 4380

tacccttatg ggggtgctgcc tggcctgcga aacccgctac gtggctcggga agtgcggctg 4440
 ccgaatggtg tacatgccag gcgacgtgcc agtgtgcagc cccagcagc acaagaactg 4500
 tgcccacccg gccatagatg ccatgcttcg caaggactcg tgcgcctgcc ccaacccgtg 4560
 cgccagcacg cgctacgcca aggagctctc catggtgcgg atcccgagcc gcgccgccgc 4620
 gcgcttcctg gcccggaagc tcaaccgcag cgaggcctac atcgcggaga acgtgctggc 4680
 cctggacatc ttctttgagg ccctcaacta tgagaccgtg gagcagaaga aggccatga 4740
 gatgtcagag ctgcttggtg acattggggg ccagatgggg ctgttcacg gggccagcct 4800
 gctcaccatc ctcgagatcc tagactacct ctgtgagtg ttccgagaca aggtcctggg 4860
 atatttctgg aaccgacagc actcccaaag gcactccagc accaatctga cctccaccc 4920
 ctccctgtgc cgtcaccaag actctctccg cctcccaccg cacctgctac cttgtcacac 4980
 agctctagac ctgctgtctg tgtcctcgga gccccgccct gacatcctgg acatgcctag 5040
 cctgcacgta gcttttccgt cttcacccca aataaagtcc taatgcac 5089

<210> 1396

<211> 3069

<212> DNA

<213> Homo sapiens

<400> 1396

gagtgtggc tttctattaa aggggtgagtg cgtgcgcca ggtggtttgg cctgtgtgcg 60
 ctagttactt gcacgcgctt cttgagtctc aaaacacaga gctctagtaa acttcagggg 120
 gcggattcgt caattacagt tgcggaagaa gactcgactc gaagagcggc cgcaccag 180
 ggctctttcc gcagcgcccc cagcgggcgg gggctcttggg cggggaagca ggagagggcc 240
 gaccgagcgc aacaaagctg agcggcgcggt cgcttcagga acgaagaagc ctcgttatgc 300
 aagcgaaaaa caaagatgct ttgcagccta ttaaggaaga taggactggg aaggcccagg 360
 atgatgcttt ctggcttcaa tcacttatta cggatgcatt ccatgataaa ggatttcaga 420
 aaataaaaga atactttcaa cagaaagaga gccactttcc tcaaaaatat aatcgtcttc 480
 tattataccg tcttgacaga tcaataaata aggaactaga taaaaatgaa tttcagtctg 540

tgtcactgtt gctgaaatgt attcagcgat tcctcgtaga tggcctgaaa gaagatgaac 600
ctctgctaatt tcggcaggga ctgatcccaa agctagtttc ctggtttgaa agaacaacag 660
gaattctgac ctcggaaggc ctagcctcag acacgtcgct gatttgtgtt atagaagatt 720
tctttgacac tgcattgatt atttccagga gtagtagtga agggaaaatt cagatgttgg 780
attccttcct acttagctta ggattcctgg tgacagaaaa gactgtaaat catttgcttc 840
aacaggaggg cttgaagact tttaactgca ttttgcacgc tgtccctcga gaagagagaa 900
aaaaattccc tttgtcagaa ggcatgtgtc atcttatgaa agaccttgca aggacactct 960
tgactgtggg tgattatgac cagcaggttg ctatttctga agcgctgtgt agactgacga 1020
ttaaaaaatc aagggatgaa cttgtccata aatggtttga tgatgaagtc attgctgaag 1080
ctttcaaaga aattaaggat cgagaatttg agacggacag tagacgtttt ctcaatcacc 1140
taaacaacag acttggtgac caaagaagat gagaaaacca gcggatgaaa aattagagaa 1200
attttggatc gacttcaacc taggaagtca gagtgtcact ttttatatag acaatgctga 1260
gaatactcta tgggactcag tgacacttcc gaaggaagcg gtgatgaatt tcagcataac 1320
agactttccc tggagtgatg agtaaaatgt ccggcaagat tagtattttg gggagatcat 1380
ggaggcttac tctagaccag cactgtccta tagaaatatg agaaacggag aagataaaga 1440
tatttatcat ttacctgaag aagcccatga ttatcagcta caaagaagtc atgaaaatag 1500
aatccattht tgatttgcag ttcaacatat cacaagtttc cattcaagct ttaggagaag 1560
acaaacagat gttgcctgac cagacgaaaa tctcctcaga actttttagt aagtctgata 1620
aagaagacag ggagagtccc agtggccttg aaagagaaac agagcaggca gaagaatcca 1680
ctaacatggg ggagtttatg agtgcgtgaag atgaccgctg cctaataact ctccacttaa 1740
atgaccaatc tgagccacct gttattgggg aacctgcctc tgatagtcac cttcagccgg 1800
tcctccgtt cggggtccct gacttcccgc aacaacctaa gtctcattac agaaaacatc 1860
tcttctctga gagtaatcaa gattcaagta ccagtgaact atcttggacc agtaaccaga 1920
aaaagaaatc cctaaaatca tattccagta gaaagaagac aagaaccaga agtaatttga 1980
gaatcttgcc agttttccct ccagtagtg gcagtggcca tgagaaagac caagctaagc 2040
ttctatcacc atcagagaaa gaaatacccg agcaaaataa caccacatct ccaaagactt 2100
ctgaacaaaa attccaagat agttttgctt ttttgactgc tgaagattct gccagaaaa 2160
cagagcttca agatcctcac tcaactgagt agctctcttc ctgaagcac tcagaagatg 2220
aagaaaaacc taagattgtg aaccaagaat cactaacaga aagtactagc ttgaaacata 2280

agctgagaaa cttggaagac aaagacatac cagaaggtag ttttgctaag tcacaacaat 2340
 caagattgga agaagagggt gcttcgggat cccctttctc aataacagaa gaaagagagt 2400
 tgccagaagg aatttcact tcatccctag aagtgtgcc agagaacttg aacggttctg 2460
 ccattctccc aacctttgaa aacttacta aaaaacggaa aagaaaatat gagcttaggt 2520
 acagaaagcg tccgtttaat tcagaaaatg caaagaaagc accggattgc ctaataaaac 2580
 ttttaaacca gatgcaactg ttcagactca ataaactaga gcgctttcaa aatttggttc 2640
 ttcaagagtt gagcagtctt aagcaggata ttcaggccct ggaacacctt gagaaggagg 2700
 ttctggaatt ctgggggaaa cagtctgctg atctgcaatc tttctgtgat ctgcaagtgc 2760
 tgaggttcaa ttcaactcag acttcataag aaagccaaag cctggtttta tgattgcagc 2820
 cctcagcctg ggctgcctga agacgaagag aaagagcaag gttattgttg gctcaggcct 2880
 tgtagccag acttcgtgct ctgtacgcat tcaatttcct cccctccaaa catcatccct 2940
 gggaactgct gagttcagat agaatatatg ttggtagttt gcagttgggt tattatccat 3000
 ttgttcataa aaattaacct tttgtattaa aatttggtca gatagtatta atagaaagtt 3060
 caggatgtt 3069

<210> 1397

<211> 3097

<212> DNA

<213> Homo sapiens

<400> 1397

cttacacatc tcaaattctt tttaaaaatt tgggagtgtt cccactttgc aagcatcccg 60
 agtgcgtcct ggggtgtgact cttctgtgat ctggcacttg gcacaggaag taaaagcggt 120
 agacattttt atagggtaca ggtgatcaac cagcggggct gcaaaatctc tggaaccagc 180
 tgcccactct gcacccaagg gccacacca ccgtgtctg ggcagaagtg agaattcagg 240
 ggagcatgga aatcagaaca gacctatctc tgaatggcct cgggctatgc ggctcatgag 300
 gggcacggaa cctacgccag tgaacatca gggaatggag ggaggtggga acctttgccc 360
 acctttgcag caagagccgt ttcattctca tctcttcac agcctgggca cagagggtctg 420

cagtgggacg gccctgggtt ctctgcaggt tggcaccgaa gccaacccat gggctctggt 480
ggcgagtgct gcgtgacttg gcttcaacac tacccaacac tctggaattc atcagttggg 540
ggtggaggtt tccattgtag aaaacaaacc caccaggttt gccaggtgt taactattta 600
cggtagaaac aggccagcca ggcagtctca ggctgtctct gccatctggg gttccagaca 660
gtgaaatgga ggcagcagag acaggtggag gctcccagag aggcagaatt gacaggggag 720
ggcaccagg aagccagaat caccggtgga ggcatccagg aagccagaat tgacaggtga 780
aggtgcccag ggccatctga agcacacatg cagcctcaa gtctcactcg cccagagtgg 840
accagaaga gtcactggat ggagccccgg ggagtctggg cttgggggtca ggggtctccag 900
gactctgctc catcatgggc cttctagtaa gaagagtcag ttcttcggac tggaggtctt 960
cccagaaaac aaaacatttc tttcagcctg atgcagtggc tcatgcctgt aatcccagca 1020
ctttgggagg ctaaggtggc aggatccctt gagcccagga cttcaagacc agcctgagca 1080
acacagggag accctgtctc tacagatagt ttttaaaatt agctgtgggt gtagtggcag 1140
gcacctgtgg cccaagctac tcgggaggct gaagtaggag gatcgcttga gccagaggag 1200
tcgaggctgc agtgagccgt gatcgccac tgcactccag cctgggcaac agagcaagaa 1260
actgtgcccc cctaccccca aaaaaagttt cttecttctt aacctgggat ttatcttttt 1320
ggaagattcc aaagtcccag caatggcgctc cagacacaag gttgtgtgat ggtgggccgg 1380
ggatgcgggg tggggtgaag acttgccag agggaggaac ataccccgac cctccgtcct 1440
cactgcctcc agtctgcctg ccctgcagtg gggttgttag aatctgggtc aggggttcac 1500
acatggcctg ggcccactgc caccctctcc agatgtatct cccagctgg ccagtgggct 1560
ctcgctccctg ctgttctctc ccaccagtg caaagggaca aggagccggg cccacggggc 1620
atgctgtaga gataagacct gggtaactg agggagggtta aggggctggg cctcgtcaag 1680
aagccctcct gcccaacctg tcggaatgcc tggagccgga gccactgca aggcagctgg 1740
tgtccccgc agaggcctcc aggtggagca ggtctttgct ctgctcctgg gttccccgg 1800
ggagaggaag actggccac ctgcaggaag ggagaggctg ggatgccgat tacaggctgg 1860
gatccctggc cctgccactc cccagctgct gacgggaggt tgctgtgcct ctccagggct 1920
gtttcttcat ctgcaaatgg ggagggtgtg gtggctcact gggcaggag gacccgtga 1980
gtttcgaaca gtctgtgtgg ctcacacaca gtgttgagga aaaccagccc atccttatta 2040
tcattcccag tccaaatgcc ctttctcct cgacctgctc ccaggccacc ctcccggaca 2100
gccgctctgg gggaagatga ggacgggagg aaagtgagag caggactcag cacggggaag 2160

agggagcagg acggggactt tggcaggcag tggggagagc ttatgggcag agtccaagcg 2220
 cctttcctgc agcctctggc cacctggagc tcggatggtg gggctgtgct gagtctgact 2280
 ccagaaaccc tcatcccagc tgtgctcagg ggggtagata acaagttcca ctttcctct 2340
 ccagttctct tctgggaggt gggtacccca ggcttcgggg gatgacgcc aggggtgagg 2400
 gttgctcagg ggcaggctga ggaggatcac aattgggaaa gaatcctagc agacccccag 2460
 gcagaagagt caggaaggag tagaccctgg tgttttgaac tcagcacttg tccgggcagt 2520
 gtgggaaaagg gggggccggc gcggggaggc gccctgggaa tgttcccaag ggctccaccg 2580
 gtgtcgctgg ggttcccagg catacgtttt ggtgggaaaa gggtcgggga aggcagtgac 2640
 taggtctctg tgcctttgtt ttaggctgga agctaaatcc agtggtcggc gcagtctacg 2700
 ggctgaatt ctatgcagtg acgggggttc cctacccac caccggcaca gccgttgct 2760
 accggggcgc acatcttcgg ggccggggcc gggccgtgta taatacattt cgggctgcgc 2820
 cccccacc cccatcccg acttacggag cggtcgtgta tcaggatgga ttttatggtg 2880
 ctgagattta tggaggctac gcagcctaca gatacgtca gcccgctgca gcggcggcag 2940
 cctacagcga cagttacggc agagtctacg cagctgccga cccgtaccat cacaccatcg 3000
 ggcccgcggc gacctacagc attggaacca tgtgaaacct tccaccgttt ctttctcgga 3060
 ccatgaaggg caaaaacaaa aaaacaaaaa aaatcac 3097

<210> 1398

<211> 3933

<212> DNA

<213> Homo sapiens

<400> 1398

gaactcactc cggcgagcga gcggcggcgc tcggcattgt ggcaggcggc tggggccggc 60
 tagggcgccg gagccgcacg cagccgcggg gctccgagag gcgcgcactg gggctgggac 120
 tgcgcggcgc cgccgctgcg agcgccactg agcggctcgc caacttcgga ggcacagcgc 180
 cggagccagg cgagcgctca gagacccgga gccagagggg cgcgccggag cctcgttcga 240
 gagccggcgc caggcaccca ccgcgctccg agtgccaggc ggccctccgc gcagcgtggc 300

ttccgctgcc cccacggaag gcacgggctg gcgctgccgg gcgccgggga ggacggcgag 360
gaggaggcgg cggcggcgga gacggcggcg gcgagactgg ggccaggagag acagccctgg 420
gggagaggcg cccgaaccag gccgcgggag catgggggcc cggagcggag ctcggggcgc 480
gctgctgctg gcaactgctg tctgctggga cccgaggctg agccaagcag gcaactgattc 540
tggcagcgag gtgctccctg actccttccc gtcagcgcca gcagagccgc tgccctactt 600
cctgcaggag ccacaggacg cctacattgt gaagaacaag cctgtggagc tccgctgccg 660
cgccctcccc gccacacaga tctacttcaa gtgcaacggc gagggtgtca gccagaacga 720
ccacgtcaca caggaaggcc tggatgaggc caccggcctg cgggtgcgcg aggtgcagat 780
cgagggtgctg cggcagcagg tggaggagct ctttgggctg gaggattact ggtgccagt 840
cgtggcctgg agctccgcgg gcaccaccaa gaggcgccga gcctacgtcc gcatcgcccta 900
cctgcgcaag aacttcgatc aggagcctct gggcaaggag gtgcccctgg accatgaggt 960
tctcctgcag tgccgcccgc cggaggggggt gcctgtggcc gagggtggaat ggctcaagaa 1020
tgaggatgtc atcgaccca cccaggacac caacttcctg ctcaccatcg accacaacct 1080
catcatccgc caggccccgc tgctggacac tgccaactat acctgcgtgg ccaagaacat 1140
cgtggccaaa cgccggagca ccaactgccac cgtcatcgtc tacgtgaatg gcggctggtc 1200
cagctgggca gagggtcac cctgctccaa ccgctgtggc cgaggctggc agaagcgcac 1260
ccggacctgc accaaccgctg ctccactcaa cggagggggc ttctgcgagg gccaggcatt 1320
ccagaagacc gcctgcacca ccatctgccc agtcgatggg gcgtggacgg agtggagcaa 1380
gtggtcagcc tgcagcactg agtgtgcccc ctggcgtagc cgcgagtgca tggcgccccc 1440
accccagaac ggaggccgtg actgcagcgg gacgctgctc gactctaaga actgcacaga 1500
tgggctgtgc atgcaaaata agaaaactct aagcgacccc aacagccacc tgctggaggc 1560
ctcaggggat gcggcgctgt atgcggggct cgtgggtggc atcttcgtgg tcgtggcaat 1620
cctcatggcg gtgggggtgg tgggtgtaccg ccgcaactgc cgtgacttcg acacagacat 1680
cactgactca tctgctgccc tgactggtgg ttccacccc gtcaacttta agacggcaag 1740
gcccagcaac ccgcagctcc tacaccctc tgtgcctcct gacctgacag ccagcgccgg 1800
catctaccgc ggaccctgt atgccctgca ggactccacc gacaaaatcc ccatgaccaa 1860
ctctcctctg ctggaccct taccagcct taaggctcaag gtctacagct ccagcaccac 1920
gggctctggg ccaggcctgg cagacggggc tgacctgctg ggggtcttgc cgcctggcac 1980
ataccctagc gatttcgccc gggacaccca ctctctgcac ctgcgcagcg ccagcctcgg 2040

ttcccagcag ctcttgggcc tgccccgaga cccaggggagc agcgtcagcg gcacctttgg 2100
ctgcctgggt gggagggtca gcatccccgg cacaggggtc agcttgctgg tgcccaatgg 2160
agccattccc cagggcaagt tctacgagat gtatctactc atcaacaagg cagaaagtac 2220
cctcccgtt tcagaaggga cccagacagt attgagcccc tcggtgacct gtggaccac 2280
aggcctcctg ctgtgccgcc ccgtcatcct caccatgccc cactgtgccg aagtcagtgc 2340
ccgtgactgg atctttcagc tcaagaccca ggcccaccag ggccactggg aggaggtggt 2400
gaccctggat gaggagacc tgaacacacc ctgctactgc cagctggagc ccagggcctg 2460
tcacatcctg ctggaccagc tgggcaccta cgtgttcacg ggcgagtcct attcccgtc 2520
agcagtcaag cggtccagc tggccgtctt cgtcccgcc ctctgcacct ccctggagta 2580
cagcctccgg gtctactgcc tggaggacac gcctgtagca ctgaaggagg tgctggagct 2640
ggagcggact ctgggcggat acttggtgga ggagccgaaa ccgctaagt tcaaggacag 2700
ttaccacaac ctgcgcctct ccctccatga cctcccccat gccattgga ggagcaagct 2760
gctggccaaa taccaggaga tccccttcta tcacatttgg agtggcagcc agaaggccct 2820
ccactgcact ttcaccctgg agaggcacag cttggcctcc acagagtca cctgcaagat 2880
ctgcgtgcgg caagtggaag gggagggcca gatattccag ctgcatacca ctctggcaga 2940
gacacctgct ggctccctgg acactctctg ctctgcccct ggcagcactg tcaccacca 3000
gctgggacct tatgccttca agatcccact gtccatccgc cagaagatat gcaacagcct 3060
agatgcccc aactcacggg gcaatgactg gcggatgtta gcacagaagc tctctatgga 3120
ccggtacctg aattactttg ccaccaaagc gagccccacg ggtgtgatcc tggacctctg 3180
ggaagctctg cagcaggacg atggggacct caacagcctg gcgagtgcct tggaggagat 3240
gggcaagagt gagatgctgg tggctgtggc caccgacggg gactgctgag cctcctggga 3300
cagcgggctg gcagggactg gcaggaggca ggtgcaggga ggcctggggc agcctcctga 3360
tggggatgtt tggcctctgc ttctcccag ttacagcca gattgcctc tctcctcct 3420
cttccccaac cccagacca tgaccagcct tagaaaatcc atgtactctg ttgttagagg 3480
gcccagagtt cttctccac cccgctctc tctctcttgg cctgagatct ctgtgcagga 3540
accaagatgg ggctgaagcc tctggaggca gttggttggg ggcgggcagg caggaggccc 3600
tccctccacc cccccacct cagcccggca acttctgggt tccatgggtt ttagttccgt 3660
tctcgttttc ttctccgtt attgatttct ctttctccc taagccccct tctgcttcca 3720
cgcccttttc ctctttgaag agtcaagtac aattcagaca aactgcttct tctgtccaa 3780

aagcaaaaag gcaaaggaaa gaaagaaagc ttcagaccgc tagtaaggct caaagaagaa 3840
gaaaaacacc aaaaccacaa gggaaaagaa aaaccagtt tcttaggaaa cgcaaacgat 3900
ttattatcca gattatttgg ataagtcctt ttt 3933

<210> 1399

<211> 3744

<212> DNA

<213> Homo sapiens

<400> 1399

agttacctag caaacaatct tcatgttaag actgagctca aataccactt cttccttaat 60
gggccctgtg atcactccag gaaatgtaat acctgagctca gaactccatc acagggggaac 120
acagccaact gttagacgac ggacataaga aagctcgaaa tgcttatctc aataattcca 180
attatgaaga aggagatgaa tattttgata aaaatttggc actctttgag gaagaaatgg 240
acaccagacc gaaggtgtct tccctcctca accgcatggc caattacact aatctgactc 300
aaggagcaaa ggaacatgaa gaggcagaaa acatcactga agggaaaaag aagcccacca 360
agacaatgtt gactgctatc tccatgagtg ccattgccac taatggagtg gtgccagctg 420
ggggctcata ctttatgatt tcccgggcac tggggccaga gtttggtggg gctgttggcc 480
tctgctttta tcttggtacc acatttgcag cagccatgta catccttggg gccattgaaa 540
tctttctggt ctatatcgtc ccccgagctg ccatctttca cagtgatgac gcactcaagg 600
aatcagcagc catgctaaat aacatgcgtg tctacggcac agctttcttg gtccttatgg 660
tattagtggg atttatcggc gtacgctatg tgaacaagtt tgcctcactt ttcctggcct 720
gtgtcattgt gtccatcttg gccatctatg ctggagccat caagtcttct tttgctcctc 780
cacacttccc ggtctgcatg ctgggtaacc gcaccctttc atcaagacac attgacgttt 840
gctctaagac caaggaaatt aacaacatga cagtcccatc aaagttatgg ggattcttct 900
gtaactcgag tcaatttttc aatgccacct gtgatgaata ctttgttcac aataacgtca 960
cttcaatcca gggcattcct ggattggcta gtggtataat tacagagaat ctttgagta 1020
attacctacc caagggagag atcatcgaaa agccttcagc caaatcttct gatgtcttag 1080

gcagcttaaa ccatgaatat gttcttgttg acatcaccac ctccttcacg cttctgggtgg 1140
gaatcttctt tccctctgtt acaggtatca tggctggatc aaacagatct ggagatctga 1200
aagatgctca gaagtctatt ccgattggta ctatccttgc catcctgacc acctcctttg 1260
tttatTTaag caatgttgtc ctttttgggtg catgtattga aggggttgtt ctcagagaca 1320
agttcgggtga tgctgtgaaa ggtaatttgg tggtaggcac cttatcttgg ccatcccat 1380
gggtgattgt tattggctcc ttcttttcaa catgtggggc tggacttcag agcctcacag 1440
gtgcaccgag gctgctacaa gctattgcca aggataacat cataccgttt ctgagggttt 1500
ttggccacag caaagccaat ggggaaccta cctgggcitt acttctaact gctgccattg 1560
cagagcttgg aatactcatt gcctccctgg atcttgtggc cccaattctt tccatgtttt 1620
ttctcatgtg ttacctcttt gtaaacttgg catgtgcctt gcaaacatta cttcgaacac 1680
ccaactggag accccgattc cgctactacc attgggccct ttctttcatg ggaatgagta 1740
tctgtctggc tctgatgttc atttcttctt ggtattatgc cattgtagcc atggtaatag 1800
ctggtatgat ctacaagtac attgaatacc aaggagctga gaaagaatgg ggtgatggta 1860
tccgtgggct gtcctcagt gcagcccgtt ttgctttgct tcgattggag gaaggacctc 1920
cacacactaa aaactggagg cctcagttgc ttgtattact gaaactagat gaagacttac 1980
atgtcaagca tectgcctc ctcacctttg cctcacagct caaagcagga aaaggtctca 2040
ctattgtggg ctctgtcatc gtgggggaact tcctagagaa ctacggtgaa gcttttagctg 2100
ctgagcagac cataaagcac ctaatggagg cagagaaggt aaaaggattc tgccagctgg 2160
tggtggccgc caagctgaga gagggcattt cccacctcat ccagtcatgt ggccttgggg 2220
gcatgaagca caacacggtg gtgatgggct ggcctaattg ctggcgtcaa agcgaagatg 2280
cccgcgcttg gaagactttt attggcacag ttcgagtga aactgctgcc catcttgcac 2340
tgctgggtggc taaaaacatc tccttctttc ccagcaatgt ggagcaattt tctgagggca 2400
acattgatgt gtggtggatt gtgcatgatg ggggggatgct tatgtacta ccattcctac 2460
tgaaacagca caaggtgtgg cgaaagtga gcatacggat cttcacagta gcccaattag 2520
aagacaacag tatccaaatg aagaaggacc tagccacctt cctatatcac ttacgcattg 2580
aggcggaggt agaagtgtg gagatgcatg acagtgatat atcagcatat acttacgagc 2640
gcactttgat gatggaacaa aggtcccaga tgcttcggca catgcggcta tccaaaacag 2700
agcgagacag agaggcaciaa ttggtgaaag accgaaactc aatgctacga ttgaccagca 2760
ttggctctga tgaggacgaa gagacagaaa cctatcagga gaaggtgcac atgacttggga 2820

caaaagacaa gtacatggca tcccggggac aaaaagcgaa gtcaatggaa ggattccagg 2880
acctgcttaa catgcgtccg gaccagtcca atgtgaggcg gatgcataca gcagtgaaac 2940
tcaacgaggt tatagttaac aagtcccatg aagcaaagct ggttttattg aatatgccag 3000
ggccaccccg aaaccctgag ggtgatgaaa actacatgga gttcctagag gtgcttaccg 3060
agggactaga gcgagtccta cttgtccggg gtgggtggcag tgaagtgatc accatttatt 3120
cataacctac tctgaatgac cgtgcttgac ctgttttctt aaaaggccta cgtcctccat 3180
ggaagtgcc a gctcattact accactccca ctcaactaga agcctgtgtt ctgtacacat 3240
catactgaac tcttgatgag ctgagcctca agtacctgtg taaaagagct cccatctgat 3300
ctgcagtcac tacagaaaaa gcaaatattc cctcaacatc agaacaatgc tcaagtcttt 3360
caagccacgt ctgagcagtc aaaggcaa at tagaattaac aagctgagcc aataaatgaa 3420
ttggtaaaag ggatgctaga aattcaactg aagaaaaaaa gcaagtcaag tacgtattca 3480
gcattaaaga tgaatctcag aagtcatggg tcaatgttga cactgtgagg ataacaacta 3540
gagacagctt catcttacta aagaatttat ggtcaagtat atttggacct attatcctcg 3600
gcaagccaag atgcaaacat tttttagcta tatttcttta gtataccac tgctgtaatt 3660
ttatattagg atactaactt gaaacatggc tgcagcctct acttcttcaa aaacatcccc 3720
ccaaaatacc agatttaa atcc 3744

<210> 1400

<211> 2891

<212> DNA

<213> Homo sapiens

<400> 1400

gtagttgcgc agcgcgcgcg ccatcttctg gtaggtcatc ttcttgcggt tgcccttctg 60
gatgccccag cgggtgcgcca gcgcctcctt gtgcttgac gagaactgga aggtgccctt 120
gtccttgtcc accaccaga tgctgtcctt catgtcgccg ctgcggagca ggtccaacag 180
gaactggtac aggcggatct tcttcttctt gcctgcgggg gggaggggccc ggtgggaggg 240
ggccccggggc ccacatggga gccgccccca ccgccttgcg tacgcacagg ggccccgggga 300

cggggtggcc gggaagggca ggggaacggc tgccccagcc cgcgccgggc gtgcatacac 360
aacgcacca cactcacaca cacacacctg ctgtgcgaca cacaccgtt cacacacacc 420
cactcacacc cagcactca cccccccca cgcgcacaca ctgcaccca cacagtgcac 480
caagtacaca cacatgctca catccacata acgcacccac acctccttac acatgctcac 540
acatcacgcc cacaccact cacacacgtg ctcacacaac gcaccttctc acaccactc 600
acactcatgc ttaaacacaa tgcaaccact cactcatgct cacaccaca cagctcaca 660
cgtacaatgt atctgatcac acacatgctg tcacacacat gcacacaaa tgcacgtgct 720
cacagactca caccacatg ctcacacaca tgcttgtgca atgcacccac agccagatt 780
gcaccacac ccaccactt gcacattcac accacatct gccctcacac actgtcactt 840
tctcacacac ccacacaatg caccagctca cactcacaca catgctcaca cactcattca 900
ctaacatgcc cccacacact ggcaccaca cgacacaccc actcacatgc ttgcaccac 960
ccacatgttc aaaccacac tgcattgtct tacacattca caaccactc acacacacct 1020
ggtcacacc actcatgctc acacctatt cacaccact cacatgcaca ctcacacca 1080
ccaatgcac ccactcacac acatgcacac aactcagac ccacttactg cccccacaca 1140
cggtcacacc caatgcacct tctcacactc atacgccac tcacacctgc tcacacacac 1200
ctcacaccag gttcacacac tcatgttcac acacctgctc atacacctca caccaggtct 1260
cataatcaca cctgtttata ctgtgttaca catgtttgca caaacacacc tgtttacaca 1320
tcttacactg ctcacctca cactttacat tgtcacctc cgcacacaca tgccctgtct 1380
cacacacaca tgtttacacc acaccattca ctcacacata tccactcaca tatgatcgca 1440
cctaccaca cctcacacac acttgcaagc acacacctgc ttacacacat ctcacgttac 1500
tcagcccccac acgcacacac ctgtcacac acatctcaca ttactcagct acacacagc 1560
ccctgtcac acacttgtgc tcacacacct cacaccattc actcacgcac acaccactc 1620
acacatgctc agtctgctc acacacatgc tcacctatcc atacacacac ttcttcacac 1680
acctcacacc aagtctcaca cacacttatg cttacaaact catgctcaca cacatgctaa 1740
cacttcacac atgctaacac ctcacacatt cacaccact cacatgctca cacttcacac 1800
atgttcacac ctcatactc acacacatgc tcacatctca caccactca cacacacctg 1860
cccacacatc tgcacacaca catgctcaca catatgctca cacatcacac atacctgctc 1920
acatacatgc tcacacctca cagctgctca ctatcactc acagctcac accagctctt 1980
tcacacctca ttgacacctg ctcactcata tttaccact tacacttgca cctcacacct 2040

gctcacgcat gcacatacat tctgctcatg catatccact tgcattgctta cagcctgtt 2100
 cacatacaac cactcagaca cctacttgca cactcaaatg ctcacacaca ttctgctctc 2160
 acatccactc acagcagctc acactcatgc atgctcacac acacctgctc tcacactcac 2220
 acatcacacc cattctcgtt tttagatgg agttgctctt gttgccagg ctggagtga 2280
 atggcacgat ctcggtcac tgcaacctcc acctccggg ttcaagcaat tctcctgtct 2340
 cagccttcca agtagctggg attacaggcg ttcaccacca cgcctgacta atttttgtat 2400
 ttttagtggc caacgtggtg aaatcccatc tctactaaaa tacaaaatat tagctgggcg 2460
 tgggtgtagg tgccgtaatc ccagctactc aggaggctga ggcaggagaa tcgcttgaac 2520
 ccgagagggtg gaggtagcag tgagccgaga ttgcgccact gcactccagc ctggcgacag 2580
 agtgagactc tgcctcaaaa aaaaaaactc ggccggggcg agtgggtcac gcctgtaatc 2640
 ccagctcttt gggaggccga ggtgggtgga taacgaggctc aggagatcaa gaccatcctg 2700
 gctaacacag tgaaaccccg tctctagtaa aatacaaaaa aattagctgg gcgtgggtggc 2760
 ggggtgcctgt agtcccagct actcaggagg ctgaggcagg agaattggtg gaaccagga 2820
 ggtggaggct gcagtgagcc gagattgcgc cactgcactc cagcctgggc gacggagcga 2880
 gactccgtct c 2891

<210> 1401

<211> 3911

<212> DNA

<213> Homo sapiens

<400> 1401

tctccaagtc tctgtttag cacttccacc ttatgttgag gttcctggc tgtattattc 60
 ttgattcgtc ttatatttc cagtacttac cccacatctt atatatgaga ggttcttata 120
 aataacctca tatgagaaaa aacttattaa aaaaaagtct aagcttcttg aagctacaaa 180
 gctttaatca caaaaaaag ttaagcaaaa tctagagtag gtttgatgtg gacaaagtaa 240
 aagttattag agggacttgg aacagaaaat gtccagacga gaggtcaggc cacggactga 300
 cacaggggca taagctggta cacgcagata gagcatgctt cctgaagctg aggggaattgg 360

gagccagtgc ctgacacaca cgatgagatt cggaaggcag gggTcaaaca tgcaaagatg 420
gcagctctgc agccagccca cagagctaag gggcacctct ctccaatcct ggcaaacgct 480
ggcacaagac acaactggat tctttctgtt gctcatgaat ttTcatgagg cagttggTga 540
gttgttctcc aggtctgtgg gggaattaac aattcaaaag gtgatctcat actactcaga 600
cccttgtgtt taccCCCggg aagatcttct gatcattaac aaggTtTact ggacatgcta 660
ctctgtgttg tgtgcctgtt gcttggaggT cctgatgttc agccatgtgg ggatgggctt 720
tgggcatcct gtaätctggc agacaatatc agcaagtaca aaaagacctg taaggtaatg 780
agtagtagaa atgttagttg cacttctca tgtgtgatac agataataga atactagaat 840
tgaaatcata taagtaaaac attttttaaa aatctaaaaa tttatatgta gagaaggTac 900
ttttggaagc atggcctttg gagaagatgc cattgatTTt ggagcaaaga cctgggttaa 960
agtcccaagt gtggattgac tctgaggctt gtgaaggTca cttaatccta atcaatcttt 1020
gctttctaata atgatatatg ggggcaatac ttgtgggata gggtagtaaa aattaacagt 1080
gggataatat acatgaaagt gcattcattc tttcattcca ttcatttgtt cagcaaatac 1140
tcattgcttg ttttTgttta tgtgccaggc actggTtggT gctaaggaga tgaaattaaa 1200
gaagaaagct gtgatcattg cccttccgat cttatagata actagactat acagaaagct 1260
gaaccacatt atgtacttgg aaagtacat gtgactattt tagctggggc agttagaaaa 1320
actttaagaa atatggcact tagatgggta atggcacttt aagggttaact ctacccttaa 1380
gggtagagtt ttgacagaca aaatggagga aggggacctc taggcagaga aattgagtgt 1440
gagcaaagag aaagtgaagg gaataattgg ataaaatgag tggTtcaatg aggacaggaa 1500
tgtcagggca ggaaaaatag attgggcttg gccttggctt ctccttcca ttccctccac 1560
ctttcagcgt gagattttta gccgctcatt tgtggaatag agctgagagg agggTgatca 1620
gccacatggg atccaatcac tagcttcttc attttttagtt aaaattatga caaggcaaga 1680
ttaaacacaa agaagggtg ggtaggtatg tatgtcaatc tgggaaggac taaattctag 1740
gggagctagt tgggatcttt tctctagccc tcctagaagt cttgtagaat ttgacattca 1800
tctccttttg tcttgaaaat ctgtgccatt tatagtTTtC agggggagaa gctaaattct 1860
gtttttgatg agctgagttt aagatggccc gtttTgaagt ggcccgttgt taggcagaat 1920
taactacaca tttagtaact tcaaggcagt acctaacctg gtgctaggac ttctttctct 1980
cctttttacc aatgttcttg atactgggaa tacaaggTcc caaacctaca gaagactcgt 2040
tgatttggTg gcaggTctga acttcagtag agacttaaaa atcctcagag ctgactgtat 2100

acacttcccg gaagtactgt gatacagttc gtcttcctac tgcggtataa ggtgaattat 2160
tcattcagtt acttcttaag gaaatgctta tcaaacaatca accatatggc agatattaag 2220
tgctgggaat gcaagaggta taagacacca ctcctgatct taaggaacct acggtcttaa 2280
gctgtacaca catgtgtaca actgtggtct gataggataa ggacagacag atcataagaa 2340
ggaagtatga tgagagagga cagatcataa gggagtatga tgagagccca agaggaagca 2400
gggtggctgc atagctgacc tcttcacccc cttcaagttt ttgctcaa atgttctcattt 2460
ggatgaagac caccccaact ctccttttaa aaagggcagc atctgccacc tcaacagttc 2520
tgagctccct caccctgttc tacagttttg ctttttccat tgcatttatt gtcctctgtc 2580
ccagttggct gtcgctgaat aacaaacct ctacaaactt actagcttaa aacaatgatt 2640
gcctctgtct ccctgttctg ttggttgact gtacttggct gggtagttct tgcttgggat 2700
ctctcctata gttgcagtca gacatcagcc agggttgcc a tctttcaaag gtgtaactgg 2760
gcgggatgtc caagaggttt tctcacatgg ctggctattg aggctgctgt cagctgggag 2820
ctcagctgat gctgttcacc agaacatctt catgtggcca ctccgtgtgg cttgggcttc 2880
tttatatgac aactgggttc taagagatag tgttcaaaga ttgagcattc caaggggtag 2940
gaagtggaag gtgccaggcc aatggcagac cacctttgga attaggacag catcattct 3000
tctatatcta ttggtcctag gacctgccc a gatttactct tgctggggga gtggcaagg 3060
cacattgcag aagaccatat gggatgaaag atacagttgc agccattgtt gggaagtcat 3120
tctgtcatac ttcctaagtt aatataaagt ttatttttat gcctattttt tgttgactct 3180
tgctagggt a taagcccat gaaagcaggt gtaccactg atgcattcca agcacctaga 3240
accatgcttg gcacgtatgt acacaatgaa tgtttgttaa atgttcaatg aatggtgtct 3300
gttcctctgc gtttaggttg ttgcctgtcc tcgggggtgtg ggtattaatc tcattcctaa 3360
tttacattct tttctctttt aacagaccgt aacactctat aagggtgtt agcatgcctt 3420
tttattcacc accatattgc tcagtgcctg gcaaggagct gatgttcaat aactgtatgt 3480
taagtgaatg agatgagacc atatttgagc tgggatctga aggatacata gtattttgcc 3540
aagaaaagaa ggaggggtag agcacaaagg cagaagaaaa tactgtgtgg taaaagagaa 3600
ggataaatga gactgcagt aaactatgag tcccctgaag ctaggtccca cccgatttga 3660
cctctagtct atttctcata ggacatgact ggtgattcca tttgccgtac cctctgcaca 3720
tgcttgttga atgaatgaat gtcaaaagag tgtgtaatac atgaactcat atatggcttt 3780
ttttgtgggg aagcagttgg gttagataaa atcaataata actcttgcta attgagaaaa 3840

tcttatacat acaaaccag aaatatgtg taaagtattg aaaaatagta aaatgtaata 3900
tttttgagca t 3911

<210> 1402

<211> 4182

<212> DNA

<213> Homo sapiens

<400> 1402

gttggctactc ctggttctca gggattcaga ctctgactgg cgtccactcc attggatccc 60
ggccctcagg tcttgaact tgcactgcca gcattcctgg gtgtccggct tgcggacagc 120
agatcgtggg acttctcagc ctccagaatt gcacgaagtg tctccttacg aatctcttcc 180
tatgtacgtg tatcctattg gctctgtttc tctgcagaac cctgactaat gcaaaccctc 240
tcattctaca gcagtgcattg tacaacacca ctacatctt cccctcccct gccttcctta 300
ccgcaagttc cctccgacca gaggccaatc ccgtgcgggt gccccggacc caccctctgc 360
accagccttc cttcttgttt tctaaaagct cgcgttttct gtgggcttcc aaggctgctc 420
ttcagtatct ttacgtcaga gcctcccagc tccttcccct ctctcaaaag cgttttcaca 480
gggactgtag gctccttccc tccccttgat aaccaagtac tatgccccag gttcttacct 540
cacagcccaa agttgtccta agtcaggccc tgacctgagt gtctccaaat ccagcaggcc 600
gtctgctctc ctgtgacatg cagcatccca cggcttttcc taaaagacc cctctgtcag 660
ctttgctgtc acccaccctc cagggtctctc tcttacaggt ctgccctttg ctagcatctt 720
agcctctcca cctcccgtg gtctgtctg cgatggacc cctccatgtg tccaaggcc 780
ctccaaagga acaggtctgt atcaggtgca attagattga ggtgcaatgc aagggttga 840
attgcagaga gggtcatttt tctttttgta aaaaagtctg ggaccagctg tcagagactg 900
atttgccac tccatggtca ccaggaccag gctgtgtcca tcttttctgt tctgaccttt 960
ttcacatggg ccattgtcca tgtcaccgct ggtcaccagc tgcagcagtc gcattcttgc 1020
tccgggcagc aggaagaagg tgagaccaga aggcagaggg ggctggctct gcctggctcag 1080
ccccagggg gctttgcca gacaccctt cccacccat ggctctgctg atttctctat 1140

agctgccacc ctctgaaaag ggagctggca gagtagttct tagacatggc acctggccac 1200
ctctgtggct gaagaagggg gttgaggatt ggggtacaca cctgtcagtc tccatgcaat 1260
gccccaaagt ggaccactga cccacacca cgctgttctc ctctgagttt tctcacctct 1320
gtccaaatgg ctgcagaagc caaaagcccc agagcccagc tccccttccc tccctttctct 1380
tccatccttc catccttcca tgagcctgcc cctcatcctc ctcagggtg gaactggctg 1440
ccggattcct ccctggctcc gtgggggctg gctcagcaat ctgagctgcc gatggctctg 1500
tgggtccagct gggaggattc atgccccatt ggggctgaga ggaatgaggt gagggctgtg 1560
gggtttgccc agaatctcct gaaatatcgg gcccaggaac tacagcagga ctctcattcc 1620
gccttctggc cactgttggg ggtgacactg gcaggatcca ggggctctgg aaagctccag 1680
gggaaatttg aggcataacc cagcttctct gagacggaac tcaggaggga tccagctcaa 1740
tcctacagag gcgaccccaa ggaaggacct gcccagggtc acttgagag ctgggcggga 1800
ggagggagaa acctccccg ttcagagtga caaagcccc cttgcctcag ggatggctga 1860
gatccaagtc ctcaaaacac gccgccatct ggagggtgtg agagcgaggt ccgtcctcag 1920
catggacgct gcagtgcaca ctgttccgtg ccagggtgtg gctgaccctg ccctgtggga 1980
ggtgatggac aggcacacag ggggagcccc gcaaacaagg ggccctgtta cagcagagtg 2040
ggagagcgcc tggtaggacg ccaagcacg tggccgggct gcagagaggc ctgcgggact 2100
tgtagacaag acgtcatgga gaaggcggag ctcccatggg ccttgcaggt ttcaccaagc 2160
aagagcggag aagacacagg ctggacaaag gaagggtggc gggacagcca gccgtgcagc 2220
agcctcacag gacacagcta ccagacagag agcaccagct gacactcatt cctccagcac 2280
caggaaatgc cacagcagaa gagagtcttc aagatgggcc agacacactt ctgcagcatg 2340
gttgctggga gcctgcacag gccaggcatt tctctacagg tgcaattgag aactcactga 2400
ggcaaaaggg cctttgtcaa cccacagaag tgacaagtcc aagtgcagac caggcttcag 2460
gtccagttgc tcttcagaac tcaaaatccc atctctgcag gtctcagcca atcctgctcc 2520
cgctgtttt tatttcctgc ccagagcaag tacagaaccg agggccatcg atgggcgaga 2580
aatcactgtg cctccaagct gtatttttca ccgtaacaag tcattacttc tgtgcccgga 2640
gtcatttctc aggatcttaa tgcattcgtt tatcaatcaa tacttaactg atgtctataa 2700
agcatgttca aatcagagg tgagagcagc tcaccaggta ccgacttcgt gtctggagcc 2760
acctgttaa ggagcaaccc ttggcacggg tcccgtgtct gcaccctcgg gagctctggg 2820
tgggtgcact ggggtcctca cagcccttcc caccactgca gatggaaatc tctacctggc 2880

agaggggctc agtcgtcccc acctgggagt ctggggccta ccggcagcag aaggtgcagt 2940
 ggccaaacac agagacattt ctatcatcag acctgggtccc cagcctgact ctgctgceca 3000
 cttacccttg gccagggcga gttcatcgac tgtgccgagc ctggctgctt ctccagccta 3060
 acaggagtcc ccgtctcgac aggactgagt ggggtgaatg cagccaagtg ctcagcagag 3120
 actgtccac cggaagtgt tcacaaatat gggctgttga acctgctgtt gttagatcta 3180
 gatccagttc tgcgaccacg ttcatgactt agatcataac tgaagtgcgg gccagccgag 3240
 gccgggccgt ttaggggttt ggctgctaata tcaagaagga cacctgggtt tggatcccag 3300
 agttccctcc agaccagat gtggcctcag gcaggatgatg agcctggaga tgcgggtttca 3360
 ttttctgcag ggtggtcaaa ggagatctca ggctttagg agacaaagca catcgccccg 3420
 aactgctcag gaggcgcaga ttacagccac cctccttacc caccctgtct cccatcacag 3480
 ccctcatgag tgctcaagca aggctcaggg cctgatggac gtggctgcct cctcctagag 3540
 gacaggcatg tctcggtgc ctgcaccagc cagcggccct tctccccggc caggagatcc 3600
 tccaaggaag gccaagggcc aagcagctgc tggagcagat gaccacaaac tcagtgactg 3660
 cagagtgcac gcgctcatca ccttacagtt gtgtaggctg ggatcccact gggctaagac 3720
 caagggtgtg ggaggctgcg tttcttgctg gatgctgtaa gggagaagtc gtttcctcgt 3780
 gtttttttaa cttccttggc ccacggacct tcctccacct tcaaagccag cagcctcgcg 3840
 tcttctgacc ttccattgtc acatcgatcat ctgaccacg taaggaccg tgtgattagg 3900
 gtgggcgcac ccgggtaatc ttccatctc aaagtccttg actgaatcac atctgcaaag 3960
 tccccttgc tacgtaaggt cacatgttca caagatccag ggattaggac ttggacattt 4020
 ttggaagccc attgtcctgc caacagcaca agacctccag gtgacccga tgtgtaatgc 4080
 acagtgagag acaaatgctc tgatggacca tcaacagcag aacagacata aatggaagaa 4140
 aatgtacata aaagagagtc cacttaaaaca tgtgaccc tc 4182

<210> 1403

<211> 4462

<212> DNA

<213> Homo sapiens

<400> 1403

tattcagagt	ttccttaata	tttcatgaag	attgtagtgt	cgtagactgaa	gttgagcac	60
tattttgtct	tctattattt	gatgaagtat	cgagaatgga	tatgtgggtct	gttaatcctt	120
ccaataaacc	ttctttgcca	tcggtcttca	gtttgcctgt	ttccgttttt	agaaggtacc	180
atctacctgt	tcatgtaatt	ggacaccatg	ctgtgagtcc	ttactccata	gttttgcctt	240
tatctgctga	ttgtttggcc	ttgaagccgg	tgtcagatat	gctgagaata	gcttggaacc	300
tgtcatggta	tcatgggagt	gataatctgt	tgaagcaaat	gaactctgaa	actaaaacgc	360
aagaaaat	agatgcattg	aagttatcta	cagaggacat	cctcactctg	aagataacac	420
acatggctag	tgggctgcag	gactgcctcc	attccattgt	tcaggctgca	accacaggg	480
aagttagggc	tgctgtcacc	aggatgagtt	tttatcttct	gaatgacaga	ttgtctttaa	540
agggttgccc	tgggtccatgt	ggggttacct	tgaagtcctt	ggcttggcac	accgcactaa	600
acaggttttt	acaggtgctt	cctgcttgca	ctgaagatga	gaaactgcta	atagatatca	660
tacat	ttttt	aaataaatta	ataaaggaac	aaagaaaaaa	ttcttcacta	720
gaacttctaa						
actggattct	cgaattactt	cttagacata	gtgcaaacc	actgttagac	ctcttggttc	780
tgacagagtc	acaggcacga	gaagaaacag	atgatatccg	gactgctgtc	aggcaacaac	840
ttcagaaaaga	actgattgct	ctttttgata	ccttgctgct	caatttcattg	gaagttactg	900
acaggaaaatg	ctcggaaactt	ctttacgttt	ttcaaacgca	gctggctctg	aaactgctcc	960
agtgtctgaa	agtgcaggat	gcgcctcatt	tctatggcct	gccgtccctt	gagcggacct	1020
tacgagggat	ggctaaccctc	actgcgtttc	cgggatggag	ctcacactct	cctctcacia	1080
agcctctaga	tatctgtgtg	aagtacttgt	caggtctcct	tgaggtcatt	acttcttttt	1140
atgtggagcg	tggaggaaat	gctatgtcct	tcatgggaaa	aggtgttaca	aagagcacia	1200
ttctttgctt	gcttcactta	tcccatgaga	tgatggccca	ggctgggagc	ttggagtgga	1260
tgtcactttg	gttcttgctt	ttgggtagtc	atagtggaga	acatattcct	actcaacaag	1320
gattggcttg	gttgattcca	ttatgggttg	atcgggaccc	agaggtgaga	ttcacttcac	1380
tgggattagg	atcagcactg	accacccttg	aaacgggctg	tgtggcctta	gcaaacagtt	1440
gtcagaacat	ttccggtggg	ctctggggaa	ctgtggtgaa	cattcttctg	gaccagtcag	1500
aatgtagtat	ggtgcgccgg	gaggcgccat	ttattcttca	gaatctcctt	gtaattccaa	1560
tgcttacaga	aattataaag	gattatactt	ggcagggtcc	ctgtgttcat	gatgaggact	1620
ctggcctatc	gctcattgga	aaacctgccc	ttcaggctct	tttatatcac	tgccat	1680

atgaacattt gaatcagatg gtaaagcatt gttacctagg acggtgtatg tttgatttga 1740
atTTTTctgc ttttgataga aattcagaaa gcaatgattt aaatggttta gatgactcat 1800
tcaagttttg gagggctcca tctaggacaa gtcaggatcg agatccaagt tctctctcca 1860
cctcagaaac aacggtggca ctttcattgg ggagtactga atttcagcca cttgtgcagt 1920
caacaacact tctacctgaa gcctcccatg accagtttgt ggctcaaggg aatcgacact 1980
ttgtaacaaa tatccaattt tagagcttgg acgaggaaag aacaagatga acctggaaca 2040
tcttgctgtg ccagaaagtc accagcaatg tgcagcctct tggacaacct cttgacgatt 2100
gctcccagag aacttgcaaa ggcttttctga caagctcatc tcatagaact tctctgtagc 2160
attgcagatg ctaccctcat acagacatgt gtccaggaac tcagagccct gctgccttca 2220
tcacctccag ctgaacacac tcaggctcag gtttccttct tcctggaata cctatcctct 2280
ttgtccaggc ttctgcagtc atgtttattg gtggagcctg accttgtgat tcaggatgag 2340
cttgtgaaac ctcttatcac caatatcatt ggaattctca ccatatgtac caaagatgta 2400
ttaggtctgg aaaatgaagt gtgttatgat acccagcaaa gccagttctc agcatctcat 2460
cagtgttaaa atgatctcga tgttaaagga atagtaattc cttagaaatt caacaagtgg 2520
cagtgatacc ctaactaagc ttattagggt agactggaca agctcaacaa ggtgatataca 2580
ccccagttct ctaaggagtg aacattgatt ctggggagaa gaggataaag agttaatatc 2640
agctttttat cacacatgga cacatttatt taatcttctg gccatgctcc tgaggaaagc 2700
tggtgccatc acactcccgt ctgttaccgt ggccctggcc aagcactgga cagcggcgat 2760
tgatatgttc tgcacatgtg caggcttgtc tgccacgtgt cctgccctgt atactgccag 2820
cttgcaattc ctttctgttc tcttgaccga agaagcaaaa gggcatctcc aggctaagag 2880
caaaacacat ttatgctgta gtccaacagt ggcttcactt cttgatgact ctcaggaaaa 2940
tcagaaatct ctagaacaac ttagtgatgt aatccttcag tgctatgaag ggaaatcctc 3000
caaagatatc ctgaaaagag tagctgcaaa tgcattgatg tctactgctgg ctgtcagtag 3060
aagagcacag aaacatgctt tgaaagccaa tcttatagac aattgcatgg agcagatgaa 3120
acacataaat gcacaactga acctagattc tctgaggcct gggaaagcag cattgaaaaa 3180
aaaggaggat ggtgttatta aagagttaag cattgccatg cagctcctaa gaaactgtct 3240
ttatcaaaat gaggaatgta aagaagcagc tcttgaagct caccttgtcc ctgtcttgca 3300
ctctctctgg ccttggattt tgatggatga ttcattgatg caaatttctc tgcagctcct 3360
ttgtgtctat actgcaaatt ttccaaatgg ttgcagttct ctttgttggt caagttgtgg 3420

acaacaccct gttcaagcta cacatagagg agccgtgagc aactctctga tgctgtgtat 3480
 cctaaagttg gcttcccaga tgccactgga gaacaccacg gttcagcaga tggtttttat 3540
 gcttctttca aacctggcct tgtcgcatga ctgtaaagga gtaattcaga agagtaactt 3600
 cttacagaac ttcctctctc tagcattgcc aaaaggagga aataaacatc taagtaatct 3660
 gactattctt tggttgaagt tactcctgaa tatatcatct ggagaagatg ggcaacaaat 3720
 gattctgagg cttgatggct gtctagactt actaacagag atgagcaaat acaagcacia 3780
 gagcagccct ttattgcctc ttcttatctt tcataatgtt tgcttcagtc ctgcaaataa 3840
 acccaagatc ctggctaagt aaaaagtcac tactgtgctt gctgcctgtc tggaaagtga 3900
 gaatcaaaat gctcagagga ttggagcagc tgccctttgg gctctgattt acaattatca 3960
 gaaggcaaaa acagctttga aaagcccatc agtaaaaaga agagtggatg aagcatactc 4020
 cttagcaaag aaaactttcc caaactcaga agcaaaccct ctaaatgcct attatttgaa 4080
 atatcttgaa aacctcgtgc agctccttaa ttcttcctga gtgccatggg atgctacacc 4140
 ttgaagctga cagtcacaa caggggagct aaagttgaag ccagctgtgt gtagcagctg 4200
 ttacctgaag acgtgctacc tctctacaaa gtgttgatcc ctttctttcc catgagagag 4260
 agaactggtg atactccaac accgtccagt tgtggcagct ctccagaagt aatagcagct 4320
 gacaactttc tgtgcctttt cttttctgtt gaaaaggcat agaaagttct gggaacataa 4380
 acatttttac cttttctat gccatttatt ttgtaaaaat cctatttaac agttatttaa 4440
 taaaacaata tttttagaaa ct 4462

<210> 1404

<211> 3405

<212> DNA

<213> Homo sapiens

<400> 1404

ataatctccg ccctcccctt cagaaccgcg cccacagct cggcgcaggt cccgccctt 60
 tccatctacg gggcggcagg aggcccgaag caagatggcg gtgaatcaga gccacaccga 120
 gaaccgccgc ggagccctca tccctaacgg tgaaagtctc ttgaagcggc ctccgaatgt 180

ggagctctcc ttcccacagc gatcagaagg ctcaaagtgc tttagtggta gaaagacagg 240
aacattgttt ctcaattcat accgggtgat tttcataact tcatgctcca tcagtgatcc 300
catgttgtct tttatgatgc catttgatct gatgacgaac ctcaactgtt aacaaccagt 360
atttgctgca aacttcatta agggaactat tcaggcagct ccatatgggtg gctgggaagg 420
acaagctact tttaaattag tcttcagaaa tggagatgcc attgaatttg cccagttgat 480
ggtgaaagct gcctctgctg ctgcccaggg atttccactt agaaccttaa atgactgggt 540
cagctctatg ggaatttatg taattactgg ggaagggaat atgtgcactc cacagatgcc 600
ttgttcagtt attgtctatg gagccccacc tgcaggatat ggagccccac ctcccggata 660
cggagcccca cctgcaggat atggagccca acccgtagga aatgaaggcc cgcctgtggg 720
atacagagcc tcacctgtgc gatatggagc cccacctctt ggatacggag cccacctgc 780
aggatatgga gccccacctc taggatatgg agccccacct cttggatatg gaacccccacc 840
tctcggatat ggagccccac ctctcggata tggagcccca cctgcaggaa atgaaggccc 900
gcctgcggga tacagagcct cacctgctgg atcaggagcc aggcctcagg aatctacagc 960
agcccaggct cctgaaaacg aggcttctct tccctctgcc tcctcttctc aggtccattc 1020
ttaaccttct aagatgtaaa ccttgaagac tcaccaagca aagaggtacc ctaaaattga 1080
agtcaggata aggaggacga ctacgcttag agtcattgat tgatctgcat tgtgaaaatt 1140
aggaaaccag atgctcccat gttctcaagg acagcctttc ttaaggaagt cagtacgtgg 1200
gcaacagtga tgagaggaag agaggagaga ctcaaccaac tagagcaggg ataaggtttc 1260
ccttgttcag cttttcagtg tctgctggaa tgtgatggta agttgagaac aggggtgaatg 1320
ggtgaggcct tttttatctc agaaagtttt ccgagtaact gatctctggc aaatatttgg 1380
ggattagaat tctaaaagaa tacaaactag acttctcttc tgctcttcat gttagttata 1440
cttgtagcag gtagatttga ggtgggggtcc agttacctga aaagcgtagc aggttcgagt 1500
ttcttaaagg tggaattcca ccatgttctc ctgtgcaaag ggtacctgtt tacctggtcc 1560
accaaactgc cccagtacaa ccaaaggctg tgactgtgta aggatagaac caagtggagc 1620
cacagtttgg acccacgtgg tgctgcgtgg cacacctact gttagttagc tcccactgtc 1680
tggtacagtt gtttcccca aaggctcagt ccaatttggt ctataagaag agcttttgtgt 1740
cctgtatatt caaaggacct tggtttttgc tttgctgagg acaaatccag tcagaattca 1800
gctgagcctt ctgcatgctg agagcactca tgtgctgagt tcctcagctc ctcaactgacg 1860
ttttgagtac tttcttctg actcaactca tgtgctgggtg gattccgctc ttctgtctc 1920

ttccccagct gcaatacaga aactatactc tgttgtctac tctttcattt cctattagaa 1980
 atataaaggg atagaaataa gaagaccttt tagtcctgga ctatctggta ttggccccta 2040
 aaatgagcct ccaaatactc cttttcatgg gtaagtggat gctccccagc ctgctggagc 2100
 agaaccttcc tggctcagct accctgagat atcaggacaa aaacatatag ttggtgtgat 2160
 tttcctcttt ttgttttttt ttttttttca agatagaatc tggctctgtc ccccaggctg 2220
 gagtgcagtg gcgcgatctc ggctcactgc aacctttgcc ccacaggttt aagcgattct 2280
 cctgcttcag cctcctgaat agcttggatg acagggtgcct gccaccatgc tcggctaatt 2340
 tttgtgtttt tagtggagac agggttttcac catgttggcc aggctggttt cgaactcctg 2400
 acctcaagtg atccaccgc ctcggcctcc caaagtgtg ggattacagg catcggcctg 2460
 tgcctggccg atttttcaat ccatagatta atatgttcaa gaaatattgc atgtctttgt 2520
 tttctgtaaa tttatttctg ttaccaagat ccccaccacc atctgctttg ttggtgggct 2580
 tctcacaat cctaagatta tgcaaaggta tccagatttt atttggcacc aagatgctga 2640
 gaagtttctt ctggtcatca gactgcttct gaaacagcca ctatccagtc ctggcagtec 2700
 cgtcaagtct aaaagcttgt tgccttggga cccagaatc ttaggtaggg cttagaacca 2760
 ggggtgtcaga gatccaactc tgtgtaccat attgctcctt agaactgggg agtaggaccc 2820
 caaaggcctc cttatccttg agagtctgac aattccttaa acttcagat tctgcctct 2880
 cagctgtgct gttggtctgc atcacctcta tctcttaagc atctatccta atccaaatct 2940
 caggatttgg gtttaccxaa aaggtaatag aaagcctttg cttcatgtt gacttggctt 3000
 tccttgccta gcacttggtt gcttgcttga aaatcatgta tgtatatata taaaatgtag 3060
 aagcccaatt caaattaata atgtaaaaat ttattctgtt acacagatta cctcattgtc 3120
 aggtaggaag tgaaacgtat gatattcttc ctggcctttg ccttgagagt cttctggagc 3180
 ctgaagaggg tggggcagac aaccatggac tgctagagaa taaactttct ttgaagcttc 3240
 ctaaattgat tagaaagaag gggttctgtc aaagggaaag ggtctataca gatgtgacca 3300
 gcagtttgat tagtttagat gtatgattta gtagccaata taagaaactt gtaattttta 3360
 gtaattagaa tttattataa ataataaaac agggatttaa ttatt 3405

<210> 1405

<211> 3318

<212> DNA

<213> Homo sapiens

<400> 1405

agttcggaga aggggggtgcc gctgaccggg ttgcgctgcg ggagagggcg ggagggcctg	60
atgggggcga agggggaatgg gttggtaaga ccgatgggga agtgaaggat ggggaatgga	120
ggctggagtg gccgcaggcc ggagctgcgg caggaggacg tatggagcga gcaggatgga	180
gtgccaacct cgcctggcta tcgggaggaa tcacgctctg cagcggggaa agagaagcaa	240
gggacagagg tctgggaagg tctgtgaacc agcccaaggc aggtgctctg gaaaagctgc	300
agaccagcat gaagaacatg gagaaggaac tgctgtgccc agtgtgtcaa gagatgtaca	360
agcagccact ggtgctgccc tgtaccaca acgtgtgcca ggcctgtgcc cgagaggtct	420
tgggccagca gggctacata ggacatggtg gggaccccag ctccgagccc acctctcctg	480
cctccacccc ttccaccgc agccccgcc tctccgcag aactctccc aagccagacc	540
gcctggaccg gctgcttaag tcaggctttg ggacataccc tgggaggaag cgaggtgctt	600
tgcaccccca agtgatcatg ttcccgtgcc cagcctgcca aggtgatgtg gagcttgggg	660
agcggggtct ggcagggtt ttccggaacc tgaccctgga gcgtgtggtg gagcgggtacc	720
gccagagtgt gagtgtggga ggtgccatcc tgtgccagtt gtgcaagccc ccaccactag	780
aggccaccaa gggctgcaca gagtgccgcg ccaccttctg caatgagtgc ttcaagctct	840
tccaccctg gggcaccag aaggctcagc atgagccac cctgcctacc ctctccttc	900
gacccaaggg ccttatgtgc ccagaccaca aggaagaggt gaccactac tgcaagacat	960
gccaacgcct ggtatgtcaa ctctgccggg tgcggcgcac ccacagcggg cacaagatca	1020
caccagtgt cagtgcctac caggccctca aggacaagct gacaaagagc ctgacataca	1080
tcctgggaaa ccaggacacg gtacagacc agatctgtga gctggaggag gccgtgaggc	1140
acaccgaggt gagtggtcag caggccaagg aggaggtgtc gcagctggtg cgggggctgg	1200
gggctgtgct ggaggagaag cgggcatcac tgcttcaggc cattgaagaa tgccagcagg	1260
agcggctggc ccgtctcagc gccagatcc aggagcaccg gagcctgctg gatggctcag	1320
gtctggtggg ctatgccag gaagtactta aggaacaga ccagccttgc tttgtgcaag	1380
ccgccaagca gctgcacaac aggattgccc gagccactga agccctccag acattccggc	1440
cagctgccag ctctccttc cgccattgcc agctcgacgt gggacgtgag atgaagctgc	1500

tgacagagct taacttcctg cgaggctgtg gccaccgcgg actctgctcc ggagcacccc 1560
agtgcctgag gccccgtca ttgacacca gcgcaccttt gcctatgata agatcttcct 1620
gtgctggcgg ctgccccccc attcaccacc tgcctggcac tataaccgtt agttccggcg 1680
cacggatgtg cctgctcagc caggccccac ccgctggcag cggcgggagg aggtgagggg 1740
caccagtgcc ctgcttgaga accccgacac gggctctgtg tatgtgctgc gtgtccgcgg 1800
ctgcaacaag gccggctacg gcgaatacag tgaagatgtg cacctgcaca cgccccggc 1860
acctgtcctg cacttcttcc tcgatagccg ctggggcgca agccgagagc ggctggctat 1920
cagcaaggac cagcgagcag tacggagtgt tccagggtg cccctgctgc tggctgctga 1980
ccggctgctg accggctgcc acctgagtgt ggatgtggc ctgggcgacg tggctgtgac 2040
ccagggccgc agctactggg cctgcgccgt agaccagcc tcctacttgg tcaaggtggg 2100
cgtcgggctg gagagcaagc ttcaagaaag tttccagggt gccccgatg tgatcagccc 2160
caggtagcag ccggacagcg ggcacgacag cggtagccag gatgccacag tggaggcgctc 2220
gccacccttc gctttcctaa ccattggcat gggcaagatc ctgctggggg cgggggcaag 2280
ctcaaacgca gggctgacag ggagggatgg cccacagcc ggctgcacag tgcccctgcc 2340
accccgccctg ggcatctgcc tggactatga gcggggccgg gtttccttcc tggatgctgt 2400
ttccttccgt gggctcttgg agtgccccct ggactgctca gggcctgtgt gccctgcctt 2460
ttgtttcctc ggggggtggcg cagtacagct ccaggagcca gtgggcacta agcctgagag 2520
gaaagtcacc attgggggct tcgccaagct ggactgagcc ttccaggccc ctcatgcaga 2580
cctgggggtcc tcctggggcc tggcccccaa acctcttggc acccggttgt tacccttg 2640
cagcttctcc cccaaactct cctaccatgt ggccctgctc cttctcccgt gtctgtcttc 2700
ccacagtttt ctcttgacct aggggctctc ttctgcccac ctctctggat ggccccggtt 2760
ctctccattg cttgttagcc agggccccac cccactgag tctgccctat gacctgcctt 2820
tggcatgtta cccaagccat ggagagagcc cttctccat ccctgtcctg tgccccccag 2880
gctgattggg agggagggca cctggaacac tgggcatgat ctccagctct gcccttgccc 2940
tgccaagctc cctgccctgt tgatgctgaa ctacagcctt gggacaggca ggctttgggg 3000
ctggacgctg tccaggcatt cctggtgagg ggaaggggac cctgtcatcc tgctttattt 3060
atttgggtcc caacacccc cagccgcatg ccccttatgt cctcttctc cctcttgcat 3120
gctttacctg tcccacacc atgccaatgt gccaaagtct ccttggggac ccagctgagt 3180
ctgggtgttc ccattgggtt gggccaggca aggcctctgg tgcccgtgc cgtccccctg 3240

cagtgggctc tgccaggcct gtgctgagca acagctgtta ttgtcatggt ttataaacia 3300
taaactgtga tgccgggc 3318

<210> 1406

<211> 2897

<212> DNA

<213> Homo sapiens

<400> 1406

tacctacagg gacaattctc aatgaaggcc ttaaattgatg ctcaattaag ctggttctca 60
tgtggcctct gtgtcttcga cagctgctga atcctctgat cacacacgat gggacttgta 120
cacttgaaat caaacatatt tttaaaactt ctgttggtga gaattccac ctcatcttc 180
catggacaaa attattcttt atgtcatagt gcacttaaaa tttggtatta cctagaagtt 240
aaagaaatat gataaccgtg ccaaactgct atctctaggt aagattattc cgtcagaaaa 300
ccctctccca gttcccctgt agctcttcag gaatcccat ctcccatag ctctttgtgc 360
ccatggatgg cgcttcctca gtagagaaga cgtttgtca agaagggaag cagaaggggg 420
acgagagggt cttgcaggca gagctggaat cgacttcac tctgcttctt gcaagctgtg 480
tgatgctagg tgaaatttct ccttctctg gagcctctat tttcttagat ttggagcagg 540
gtggtcacac tgaccttgta gatttctgag aatcagagac agcacatgaa aagcctggag 600
gccattctct taagagtagc tgtgactcat gtgtggacaa tgggcttttc atgcttctgt 660
ttctctctgt ttatctgatg caaggaacat gctccggtga tgatggtgag ggaggaatta 720
gaatagacat agacaccct gtgtcagaaa catgcttctt tattactggg ttatgactct 780
gtcttcccag ggacaggccc cagcctgcgt acatttgcag acagagtggc gtgtggggat 840
agcagtttgt cccacgact tttcttact cccctgctgt tggaaggact cagttgaagg 900
gacactttat ggcattgatg ctgccatttt gaaacctgga ggagggaag gtgcaaggga 960
ctatcacctg aggcataagg tgcagcttgt gttgggtttg gtgtttttgt gtccatcata 1020
ttcatatatt tcaaacatt ttctctctt gactttagg tcaatgtggc tacagggaag 1080
cctcatcctt tctcagaatg gccctacttg cccgatgtca tggctggccc ttcaggacca 1140

ttgatgggct gccagccgcc tcctctacct ggggtgttgct tgggaactca aacactccct 1200
ccatctgaag gttttctggg accccaacaa actcctccac tggagagtcc tctgggaatt 1260
caaccacctc cactcgactg tcctctggga actcagccac ctctgcact agagagtccc 1320
ctgaaaactt aaccacctcc tccactcgat tgttctctgg ggccttatcc agctcctgca 1380
gctgtcagtc ctccaggacc tcatccacct actgcagctg cctgtctttc cggacctcat 1440
ccaccacctg cggctgtcaa tcctccagga cctcaatcac ctgctgcacc tgttggtcct 1500
ccatgacctc attgaccac ggcattgcac tgacctcacc cacctcctgc agctgtcagt 1560
cctccgggac ctcatccacc tcctgcagct gtccgtcttc cgggacctca tccacctctc 1620
gaagctgggtg gtctcccgga acctcatcca cctcctgcag ctggtgggtcc tccgggacct 1680
catccacctt ttgcagctgt tggctcttcg ggacctcatt cacctcctgc agctgttggt 1740
cctctgggac ttcattccaca ccctgcagct gtaggtcttc tgggacctca tccacctcct 1800
gcagctgttg gtctctggg acctcatcca cctcctggag ctgtaagtct tctgggacct 1860
catcaacatg ctacatgtgt ctgtcttcg ggacctcacc cacctcctac agctcttggt 1920
cctcccagac ctcatccacg tccagcatgt gtcttcctc caggacctca tccatctttt 1980
atagctgcct tcctctagga catcatttac ctttttgctc tgtgaggcct ctgggacctc 2040
cgactacac tccacttagt aacctctgga tcctcagcca ccccttctac ctgggtggcg 2100
tctggccct caataaccac ctccacatga atctcctcg ttacttcaat aatctccatt 2160
tgtggtcct gggacttcag ccacttctc caccagggc tcctctagta catctgccac 2220
ctcctccact tggtggcct ctgtatctg aactcctcca ggacctcaac cagctccct 2280
acccattgtt gcctgtagga cctcgaccac gacctccaca tgtactactt ggtatattta 2340
tctgaacagt atgaactgag ttgcaaatg gattcatctt tccctttctg aatgaataga 2400
aatgttacag attgtactgc agggctttgc actggctgag gatgtggtca ctttgctcaa 2460
gtttctgaga gtacaagtca gttgcattat ttcctcatca tgaccttggc agaaggtatc 2520
ttctgtagat gaggaaagag ttttttttca ttttaagggg tgggggcaga gtcttgctct 2580
gtcaccaagg ctggggtgca ggggtgcact cctggctcac tgcaacctcc gtctccaggg 2640
ctcaggtgat ccttcacct cagcctccag agtagctggg actacaggtg tgcaacacca 2700
tgcttggtca tttttatttt ttaacttttt gtagagacca cgtttacca tgttgctcag 2760
gctggcctca agctcctgga gccatgccat ctgcccactt tggcctcca aagtgtgag 2820
attacaagtg tgagccactg tgcccagcca gaggttattt atagaagcta gaaatacaag 2880

ttttgcaggc ttgtgtg

2897

<210> 1407

<211> 3464

<212> DNA

<213> Homo sapiens

<400> 1407

ccctttgtga gaagtgggag ggggagcccc ttctcttga cagaacagcc cagcccaggg 60
tgcagagcat ggattccagc ccagtgggtcc gtctgccagg gccctcatgt ggagaacagc 120
cggcacagct cagaggcagc ccccaggaac ccatgagaca ctttccatgg tagctccctt 180
ggcaagggag cacatgccag ggaagggcca catgggcttc gggggtggag ttctgcctca 240
gggagggatc cctgtcacc ctgcaggaag gggcagttcc cgaaggggct aagtagccct 300
ggggacaggg aagcagcaca gatgacaaca cagagcgtgg ccctgggtctc cgagctcatg 360
acgcagaagc tgcacgtgct ccagcaaggg caggccatca ccaccctgtg tggcctcacc 420
tcaggccacg gaccaaggaa ggctgggttt caggcatccc tcctgcagcc gccagcctcc 480
ccttgcccca ctcccagatc cagcttcttc ctcccagaag agcaaagagg caaaaacaca 540
aggcggaaat cagccagccc ctggccacag aggacatcct gcctatgggc agcagcccaa 600
gccacatgca gtggcccccg ccaagcttgc tagccatgtc ctttccccct tcctgtgcca 660
gaacaggaca gagtctccca ggtaaccctt tcctcttccc acagaaggga agggctctctg 720
gtgcatgagg ggaagctcct ttgacctcag gctccaagga cagtggggac aagctaagtc 780
aactggcatc tgctaagccc ccatcacagt ggtttgttta gggattggcc tttctcaaca 840
agcaagtatt tagtgagcct ctgtgttcag gcctccgaga acacagcaca ggggaagcat 900
ctaaaagccc tgccctgggtg gccctcacat caggtcacag ggccagttag ccgctgtggc 960
ctgaaactca ccccagctga gggccttgtg gggctgtggg attcactacc ctccacggag 1020
aagccatccc caggaggagg tctagaaacc ccaccataca ttgcttcatt cttcccctcc 1080
ctcggcaaac gcctgccggg cacctgcttg tgttagtga gggcccaaca ctagactcac 1140
tatgaagagc tgccttcact cctgggaaca tcaggaggga ccctcccctc tgcattctac 1200

tgacagagcc ccccagccaa acaatcctcc tcagccctgg gatgcagcac ggcacccccca 1260
tccttgcaca gtgggctgca ggatccccag cgtccccaga tggtaagggt ggctccctgt 1320
gcctcagcca cttttaacaa gtgtgctttc cactgaacac ctgctttccc tcaggagacc 1380
tagaatttgg gtacatgcta cgccctagta aaaaccctgg gcgctgagtc cctaagagta 1440
tcctgttagc tgacagttca caagtgttgt cataacctga cactggagaa aataaccttg 1500
tcctgtgtag ctgcaccagg acaggctctt gggaacttgc gcccagatcc ccggactctg 1560
ccccacgtga ctttcccctg ctggcttgct ctgtgtcctt tcgtagtaat gaaccatgct 1620
gtgaggatag caccacgtga tgagggtgt gagtcctcct gagaaaaatca ccaacactgg 1680
gagtggctct cgggaaactt gacgcaagct ccaaggccaa taacttcaga aaaatccaca 1740
aactgaaagc cactgtaaag gagaaagcgc caggctccag gaggcttccc tacacagact 1800
ctggggtaat tcacgtcac tccccacggg gctttggggc agacagacc cattctgccc 1860
tctggtgtcc acagagtccc cgatgagctg aacaccaa atgctcggaggc cctggccaca 1920
gggatcagt tccaccagca acctggtcca ttcagggtgg acgctttgac caatgggtgg 1980
gaagtcttaa aaggagcaca cctcaggcca gggcaggcca cccccccac accctgacac 2040
agcctcagga atgggaatct ccccttttct aatacccaac atgaaggaaa agcccactct 2100
ctgtctgccc gttctgtgtt ttcttagatt ctgcatgtct gtttgacatt ctcaaggcca 2160
actgttgccc aaagagattc cctccggcta cgaggcagct tgggtgggcc cactgtatta 2220
gtctttcatg ttgctgcaag gaaataacctg aaactgggta atttataaag aaaagcggtt 2280
tctttggctc acagttctgc aggctgtaca ggaagcatgg caccaacatt tgcactgtgt 2340
gaggacttgg gaagcttcca ctcatggcag gaggcaaagg gggagcaggt gcctcacctg 2400
gcgagagaag gagcccgaga gagggaggac gtgccaggct ctttaacaa ccagaacttg 2460
cgtgaactcg tagtgagaac tcattaccac gaggacagca gcaaccactg aggaggcatc 2520
agccctcatg agccaaacac ctcccagcag gcccacctcc agcattggtg gccacatttc 2580
aacatatgtg gaggggacaa aacatctcag ccctatctcc caccacctc cattatctga 2640
ctcttgcaca tccagccaac actccccgta cccaagtcatt tccagggccca ggaagcaggc 2700
aactagagcc ccgctacagc ctgaagccca cagaatgatt ggtgctggca gatgctaagc 2760
tgctcacctc cctgcagagg acacccccca tgcgggctga ggcctaacc ctccccagcc 2820
ccgcctcct gtctcctgac caccctgaca tgctgtctag agaagagggc tactgtgtaa 2880
ggacaaatca gagcaacttg aggatcaagt tgctgcctcg ttccccagca ccaatgcgga 2940

ggccttgtgg gaagggtagc catggagcca gtccagactg gaagacacaa ggcaagtccc 3000
 gcctgtccag acctgctggt acctcccacc tgcaggacgt gaaatcacag caaaaaggag 3060
 acaaggatta ttttaaagag tggagagaga gggcccggag tgggtgatca cgcctgtaat 3120
 cccagcactt tgggaggcca aggtgggcag atcatgaggt caggagttcg agatcagtct 3180
 ggctgacatg gtgaaacttt gtctaaagat acaaaaaatt aaccagaagt ggtggtgcac 3240
 gtctgtaatc ccagctactc gggaggctga ggcaggagaa tcgattgaac ccgggaggca 3300
 gaggatgcag tgagccgaga tcgtgccatt gcaaactgca atccagcctg ggcgacaggg 3360
 caagacttcg tctcaaaaaa aaaaaaaaaa aaaaaagagt ggagagagag aaaagacagt 3420
 tttgtgttct tttgactga taaaataaga aatatttatt ctct 3464

<210> 1408

<211> 3978

<212> DNA

<213> Homo sapiens

<400> 1408

gtgaaaggct ggggagggtc cagagcagca gagactcccc ttcactgcta ggggtgaaggg 60
 agaatgatac agcctcttcg gaagacagtt tgggcatttc ttacaaagggt aaacatgtat 120
 ttaccccatg acccagtagt cctgttccta ggtattttct caagagaaat gaaaacttag 180
 attcatacta aatcctatat atgaatgttc acagcagcac tgtcataact gccagaagct 240
 ggaaacaacc ttgtgccctt cagccagtgg gcagaaggat gtctccgtgg acagggacag 300
 cccatgcgtg gatggaagga catctccgtg gacggggaca gctcccgcgt gatggaagga 360
 catctctgtg gacggggaca gcccatgcgt gatggaagga catctccgtg gacagggaca 420
 gtccatgcgt ggatggagga caactccgtg gacggggaca gcccgtgtgt gatggaagga 480
 catctccgtg gacggggaca gcttgtgcgt ggatggaagg acatctccgt ggacggggac 540
 agcctgtgtg tgatggaagg acatctccgt ggacagggac agcctgtgtg tgatggaagg 600
 acatcctagt ggacatggcc agcctgtgtg tcatgccacc aggcagtggg attgtgctta 660
 gcagtgaggg gttactgctg actcacatga catgatggat catacattgt gcattttgct 720

gtgcagcaga agccagactt gaaagctggt attgattctt tttaccggac acctgggagg 780
tgcagaactg tagggaagag acccgtccgt ggctcgctaaa ggtttgagt tagagggtga 840
ccggagaggc atcccgaggg ggtgtgggtg tggaagctgc tctgtctggc gcgggtggtgg 900
cggacacctg accgtgcctc tctcagagcc cgctggacgg caccagcatg gagctaaggg 960
aggaggaatg cagacagcgg cccatgaacc gcagaagcac actgtgggct gggaagaaag 1020
gagctctttt cagtggcctt gggaaaggcg tttgactgtg gttcactgta aggctgaaga 1080
caaaaagaac tgcaaaccgt gggctgcgtt tggcatttgc ttcttacagg aatcaataag 1140
cccatgcatg gtagctaata agaagcagat ttctccctgt tagcgatgaa gttagaaatg 1200
aagggtgga ttgaagccca gatcagtttg ggcttgtggt ttctgtgaga taaataaata 1260
gatgaagaaa taaacacgga catgtgtgag catgacttag taaacacaca cagtcctagg 1320
ccatacacca agtggctaga atcaggaacc aggcggtagt gagcaagctc agtgttgcaa 1380
attatgcgga cgagaccctg tgccgtcccc caccacgcag agccctagag aaggggttaa 1440
ttccagggtt gaggcaaggg aaatacaaga tgagcctgaa acttcttgtg gagcaaaaaa 1500
gtaaggaact gctgaacaag aatcagttag gctgggtcgg gaggcaggtc tgacggcgctc 1560
agaggctgag cctcccacgg gctagcactg aacaccctgc acagcaacct agacagcagc 1620
atgactagat gataaccaga gagcacacag ataccttcac ctccaccgtg tgtacgcaga 1680
gaaagtgcct cctcaaccag agagcacaca tatcttcacc tccaccgtgt gtacgcagag 1740
aaagtgcctc ctcaaccaga gagcacacat atcttcacct ccaccgtgtg tacgcagaga 1800
aagcgcttcc tcaaccagag agcacacaga taccttcacc tccaccgtcc accgtgtgta 1860
tgcagagaaa gtgcctcctc aaccagagag cacacatatc ttacctcca ccgtgtgtac 1920
gcagagaaaag tgctcctca accagagagc acacatatct tcacctccac cgtgtgtacg 1980
cagagaaaagt gcctcctcaa ccagagagca cacatatctt cacctgcact gtgtgtacgc 2040
agagaaaagt cctcctcaac cagagagcac acatatcttc acctccaccg tgtgtacgca 2100
gagaaaagtgc ctctcaacc agagagcaca catatcttca cctgcactgt gtgtacgcag 2160
agaaaagtgc tcctcaacca gagggcacac agatatcttc acctccacca tgtgtacgca 2220
gagaaaagcgc ctctcaacc agaggattcc agttataaat ggtgaaggaa ccagggcagt 2280
tggaggcccc gctggggcac caaggcagca gccactgtca cgaggtcttc caagggaagt 2340
ggaactccag gggtcacagt cccatcacca gggatgagag aggccaccac acctcctgct 2400
gtggagccct gcaggggaca cgtgtctcct caacaaatcc tcccagtag tgtcatcagt 2460

agaagacatc agacaagtcg aaatcaaggg cattccaaaa agacatgtcc ggagctttga 2520
ggagcagcca ggtcattaag gacggcgccg tggccccggg tgagctggag ggcgccatgg 2580
ggctgtctgc gctgcttctg cagcttccct gcaagtctaa agtgatttca aggcaaaatg 2640
attagaaaac ggagtcagag ccaagaaagt cttcaatttt cctaggatag atgaacagaa 2700
ttgggcatgg cgccaggtgc ctgtggtccc agctgcccgg gctggagaat cacttgagcc 2760
tggaaggtca aggctgcggt gagctgtgat cgcaccactg caccatcc ctcggcaaca 2820
gattaggacc ctgtctctac aaaaacagga ctgtgtttgc aaagctgcag tcttatcctt 2880
caaagtgtgg agttcaaaac cagcccatgt ctgcgcctgg ccctggccca gttgcgagca 2940
ctctgtggca gcaagtccac ctttaggtgc acactctctg cttggtggct ctcatttaac 3000
ctgtcctgta atatttgaac tttctgtcca gtaatatattg aagttcattt tatattctaa 3060
gagatgtatt taatgaaatt gagcttatcc atgtaagaat gaaggaaatga gaccctgaag 3120
aaatcagtca ccgtaatttc agaccattaa tagaagaaat aaaagtgaca gtggagtgaag 3180
tgtggcaagc agaagagctg tcgggaacgt cacctgcca cccctttgct gtaggacct 3240
accaccagca tactccgtcg ttggcacctt cgtcgttggc acgtctctac cctcagcaga 3300
gcaggccagg cactgaacgg caggaagccc acatttctc cccagcttcc ctctctgcca 3360
aggccagaga cgcgtgcaga gcccagtta attggggctt ctctccccgg cgccaccgtg 3420
agcaccgtcc ttccctctct gtttggagggt tttgttcttg atatgctctg actgcattt 3480
ttctctctt gcactgcct ataggatctt tctactccac actcccaaac ttctctcaaa 3540
taattacaat tatgggaaca ggcgaaattt gttgttgttg ttgttctagt aagaatcaga 3600
ttgggaggcc gaggcgggcg ggtcacgagg tcaggagatc gagaccatcc tggccaacac 3660
cgtaaaaccc cgtctctact aaaaatacaa aaaaaatgag ccgggcgtgg tggctcacgc 3720
ctgtaatccc agcacttttg gaggccgagg cgggcgggtc acgagtcaga agatcgagac 3780
cagcctggct cacacggtga aacccgtct ctactaaaat acaaaaaaat tagctgggtg 3840
tggtggcggg cgcctgtagt cccagctact cgggaggctg aggtaggaga atggcgtgaa 3900
cccgggaggc gaagcctgca gtgagccaag gtcgcaccac tgcactccag cctgggcgac 3960
agagcaagag tccgtctt 3978

<210> 1409

<211> 3998

<212> DNA

<213> Homo sapiens

<400> 1409

attttcgagt	gaaggacccg	gagccgaaac	accggtagga	gcgggggaggt	gggtactaca	60
caaccgtctc	cagccttggt	ctgagtggac	tgtcctgcag	cgaccatgcc	ccgtaaaggc	120
accagaccct	ccactgcccc	gcgcagagag	gaagggccgc	cgccgccgctc	ccctgacggc	180
gccagcagcg	acgcggagcc	tgagccgccg	tccggccgca	cggagagccc	agccaccgcc	240
gcagcaatga	ccaatgaagc	tggagctcct	cggcttatga	taactcatat	tgtaaaccag	300
aacttcaaat	cctatgctgg	ggagaaaatt	ctgggacctt	tccataagcg	cttttctgt	360
attatcgggc	caaatggcag	tggcaaatcc	aatgttattg	attctatgct	ttttgtgttt	420
ggctatcgag	cacaaaaaat	aagatctaaa	aaactctcag	tattaataca	taattctgat	480
gaacacaagg	acattcagag	ttgtacagta	gaagttcatt	ttcaaaagat	aattgataag	540
gaaggggatg	attatgaagt	cattcctaac	agtaatttct	atgtatccag	aacggcctgc	600
agagataata	cttctgtcta	tcacataagt	ggaaagaaaa	agacatttaa	ggatgttgga	660
aatcttcttc	gaagccatgg	aattgacttg	gaccataata	gatttttaat	tttacagggt	720
gaagttgaac	aaattgctat	gatgaaacca	aaaggccaga	ctgaacacga	tgagggtatg	780
cttgaatatt	tagaagatat	aattggttgt	ggacggctaa	atgaacctat	taaagtcttg	840
tgtcggagag	ttgaaatatt	aatgaacac	agaggagaga	agttaaacag	ggtaaagatg	900
gtggaaaagg	aaaaggatgc	cttagaagga	gagaaaaaca	tagctatcga	atttcttacc	960
ttggaaaatg	aaatatttag	aaaaaagaat	catgtttgtc	aatattatat	ttatgagttg	1020
cagaaacgaa	ttgctgaaat	ggaaactcaa	aaggaaaaaa	ttcatgaaga	taccaaagaa	1080
attaatgaga	agagcaatat	actatcaaat	gaaatgaaag	ctaagaataa	agatgtaaaa	1140
gatacagaaa	agaaactgaa	taaaattaca	aaatttattg	aggagaataa	agaaaaattt	1200
acacagctag	at ttggaaga	tgttcaagtt	agagaaaagt	taaaacatgc	cacgagtaaa	1260
gccaaaaaac	tggagaaaca	acttcaaaaa	gataaagaaa	aggttgaaga	atttaaaagt	1320
atacctgcc	agagtaacaa	tatcattaat	gaaacaacaa	ccagaaacaa	tgccctcgag	1380
aaggaaaaag	agaaagaaga	aaaaaaatta	aaggaagtta	tggatagcct	taaacaggaa	1440

acacaagggc ttcagaaaga aaaagaaagt cgagagaaag aacttatggg tttcagcaaa 1500
tcggtaaagt aagcacgttc aaagatggat gtagccagat cagaacttga tatctatctc 1560
agtcgtcata atactgcagt gtctcaatta actaaggcta aggaagctct aattgcagct 1620
tctgagactc tcaaagaaag gaaagctgca atcagagata tagaaggaaa actccctcaa 1680
actgaacaag aattaaagga gaaagaaaaa gaacttcaaa aacttacaca agaagaaaca 1740
aactttaaaa gtttggttca tgatctcttt caaaaagttg aagaagcaaa gagctcatta 1800
gcaatgaatc gaagtagggg gaaagtcctt gatgcaataa ttcaagaaaa aaaatctggc 1860
aggattccag gaatatatgg aagattgggg gacttaggag ccattgatga aaaatacgac 1920
gtggctatat catcctgttg tcatgcactg gactacattg ttgttgattc tattgatata 1980
gccaagaat gtgtaaactt ccttaaaaga caaaatattg gagttgcaac ctttataggt 2040
ttagataaga tggctgtatg ggcgaaaaag atgaccgaaa ttcaaactcc tgaaaatact 2100
cctcgtttat ttgatttagt aaaagtaaaa gatgagaaaa ttcgccaagc tttttatfff 2160
gctttacgag ataccttagt agctgacaac ttggatcaag ccacaagagt agcatatcaa 2220
aaagatagaa gatggagagt ggtaacttta cagggacaaa tcatagaaca gtcaggtaca 2280
atgactgggtg gtggaagcaa agtaatgaaa ggaagaatgg gttcctcact tgttattgaa 2340
atctctgaag aagaggtaaa caaaatggaa tcacagttgc aaaacgactc taaaaagca 2400
atgcaaactc aagaacagaa agtacaactt gaagaaagag tagttaagtt acggcatagt 2460
gaacgagaaa tgaggaacac actagaaaaa ttactgcaa gcatccagcg tttaatagag 2520
caagaagaat atttgaatgt ccaagttaag gaacttgaag ctaatgtact tgctacagcc 2580
cctgacaaaa aaaagcagaa attgctagaa gaaaacgtta gtgctttcaa aacagaatat 2640
gatgctgtgg ctgagaaagc tggtaaagta gaagctgagg ttaaagcgtt acacaatacc 2700
atcgtagaaa tcaataatca taaactcaag gccaacaag acaaacttga taaaataaat 2760
aagcaattag atgaatgtgc ttctgctatt actaaagccc aagtagcaat caagactgct 2820
gacagagacc ttcaaaaggc acaagactct gtcttgcgta cagagaaaga aataaaagat 2880
actgagaaag aggtggatga cctaacagca gagctgaaaa gtcttgagga caaagcagca 2940
gaggtcgtaa agaatacaaa tgctgcagag gaatccttac cagagatcca gaaagaacat 3000
cgcaatctgc ttcaagaatt aaaagttatt caagaaaatg aacatgctct tcaaaaagat 3060
gcacttagta ttaagttgaa acttgaacaa atagatgggtc acattgctga acataattct 3120
aaaataaaat attggcacia agagatttca aaaatatcac tgcacccat agaagataat 3180

cctattgaag agatttcggt tctaagccca gaggatcttg aagcgatcaa gaatccagat 3240
 tctataacaa atcaaattgc acttttggaa gcccgggtgtc atgaaatgaa accaaacctc 3300
 ggtgccatcg cagagtataa aaagaaggaa gaattgtatt tgcaacgggt agcagaattg 3360
 gacaaaatta cttatgaaag agacagtttt agacaggcat atgaagatct tcggaaacaa 3420
 aggcttaatg aatttatggc aggtttttat ataataacaa ataaattaaa ggaaaattac 3480
 caaatgctta ctttgggagg ggacgccgaa ctcgagcttg tagacagctt ggatcctttc 3540
 tctgaaggaa tcatgttcag tgttcgacca cctaagaaaa gttggaaaaa gatcttcaac 3600
 ctttcgggag gagagaaaac acttagttca ttggcttttag tatttgctct tcaccactac 3660
 aagcccactc ccctttactt catggatgag attgatgcag cccttgattt taaaaatgtg 3720
 tccattgttg cattttatat atatgaacaa acaaaaaatg cacagttcat aataatttct 3780
 cttcgaaata atatgtttga gatttcggat agacttattg gaatttaca gacatacaac 3840
 ataacaàaaa gtgttgctgt aaatccaaaa gaaattgcat ctaagggact ttgttgaact 3900
 ttatgctgaa gattcttcaa gttgattcag tgtattactg attttttct atttgtaaag 3960
 gattatgagt tgtataaat acatactccc taaactag 3998

<210> 1410

<211> 3273

<212> DNA

<213> Homo sapiens

<400> 1410

gtttttggct gcttcccggg aagccgttgg tcgcgcttgc gtagtgaacc gctgaggctg 60
 tgttgagcgc tccttctccg cgcaactcgc ggcttcgaca ccgccttcct tcctatgaat 120
 ccttaattta acgtgggtcac agtcagctta agaccggcac ctctcgggct ccgtcttgta 180
 ggacctcggc ctggcttcga gggcttccat acaggtcacc gcaggctctt tcaactcccg 240
 ccgcttcag gcccgcgtaa ccagaccaca aactgaact tggagcacca agaacaggag 300
 cccacacctg tttggccagg atgcctttgg gacgcttggc agggagcgcc cgctccgagg 360
 agggaagcga ggcatttctg gagggaatgg tggattggga gctgagtagg ctgcagcgac 420

aatgcaaagt gatggaaggg gagaggcggg cctacagcaa ggaagtccac cagcgcataca 480
acaagcaact tgaggagatc cggcgcttgg aggaggtacg gggcgatctc caggtgcaga 540
tcagcgcagc ccagaaccag gtcaagcggc ttcgggacag tcagcggctg gagaacatgg 600
accgcctgct gaagggcccg gccaggtgc aggcggagat cgaggagctg caggagcaga 660
ccagggccct ggacaagcag atccaggagt gggagacgcg gatctttacc cacagtaaga 720
atgtcaggtc cccgggattc atcctggatc agaaggtcaa gatcaggcga aggatcagga 780
tcctagaaaa ccagttggac agggtcacct gtcactttga caaccagctg gtacggaatg 840
cggccctgcg ggaggagctg gatctgctgc ggatcgacag gaaccgctat ctgaacgtgg 900
accgcaagct gaagaaggag atccaccacc tgcataccct ggtcagcacc cttatctct 960
cctccacctc tgcctacgcc gtcagggagg aggcgaaggc caagatgggc ttgctgcggg 1020
agcgcgcgga gaaagaggag gccagagcgc agatggaggc gcaggctctg cagcggcaga 1080
tcttgacct ggagcagctg caccacttcc tcaagctcaa gaacaacgac cggcagccgg 1140
atcccgatgt cctggagaag cgtgaaaagc aggccgggga ggtggccgag ggcgtctgga 1200
agacctcca ggagaggctg gtgctttgct acgaggacgc cctgaataaa ctgtcccagc 1260
tgatggggga gagtaccct gacctgttgg tgcagaagta tctggagact ttccctctct 1320
gccttgctgt gtatttctgt gtcccacctg ccgtatcttc ccacacctct ttgtctctgt 1380
gactcctctc tgttcgtctc tctgccttgg tttctgtgtg gccttctca tcttcacttt 1440
ctttggcctt ctgtatgcct ctctgtctct gttctctctg tctctgtttc tctgtctccc 1500
tctctctggg ccccgcttgc cccaactctc ccagtcgagg agcgcaactt tgctgagttc 1560
aacttcatca acgagcagaa cttggagctg gagcatgtgc aggaagagat caaggagatg 1620
caggaggctt tggtagcgc acgtgccagc aaggatgacc agcatttgct gcaggagcag 1680
cagcagaagg tggtgcagca gcgcatggac aaggatgact cggaggctga gcgccttgag 1740
gcccgccttc aggatgtgcg gggacagctg gagaagctca aggctgatat ccagctcttc 1800
ttaccaagg cccattgcga cagcagcatg atcgatgacc tccttggggg caagaccagc 1860
atgggagacc gggacatggg cctcttctct agcctcattg agaagcggct ggtggagctc 1920
ctgacagtgc aggccttctc acatgcccag agcttcacct ccctggccga cgctgccctc 1980
ctagtgtggt gccagagcct ggaggacctt ccgaagaaga tggccccact tcagccccct 2040
gacactctgt gaggcgcagg gcaggagaga agacccccct ggttttgagg ccagcgatga 2100
ctaccccatg agcagggagg agctgtctgag ccaagtggag aagctggtga gagtggggcc 2160

tgcgggggtg gggccaggcc tcagtgtgtg tcggggccca gttcaccttc cctgcaggtg 2220
 gagctccagg agcaggcgga ggcgcagcgc cagaaggacc tggccgccgc cgccgcgaag 2280
 ctggacggca ccctgagcgt ggacctggcc agcaccacaga gggccggctc cagtaccgtc 2340
 ctggtgcccc ccaggcacc ccatgccatc cccgggtcca ttttgagcca caagactagc 2400
 agagaccgtg gctctcttgg ccacgtcact tttggcggcc tcagctccag cactgggcat 2460
 ttgcccagcc acatcacgca cggtgacccc aacactggcc acgtgacctt cggctccacc 2520
 agtgcctcga gtggggggcca cgtgaccttc agaccctgca gcgccagcag ctacctgggc 2580
 tccactggat acgtgggggtc cagcaggggc ggagaaaaca cagagggtgg tgtggagagc 2640
 ggaggcacag cgtccgattc gagcggaggc ctccgggtcca gcagagacca cgtctccagc 2700
 accggccctg cctccagcac tggcccgggc tcctccacca gcaaagactc ccggggctaa 2760
 cacgaggggc acgcagcccc caccctgccc tggctctctg tggggctctt ttttgtgtct 2820
 ctacttcccc tgtttgcctt gtgggtctct gtctttttct cccagtggca ggcctctgtc 2880
 tttttgcccc ttcaactgtt ttcattctgcc cttcatcacc gcctcacctg tgtctcccgg 2940
 ttcctttctc tctgtcctg aactgtctt tccctctgac tcctgatctc ctgttctctg 3000
 ggcttcctgg tcagtgtctg tccgtcttgt ctccatatct gcccttccc tgtctgtctga 3060
 gccctggccc cctgtggatc cccacctcc tgtttccggc tctctctct catctccatc 3120
 tcccaggctc tccacgcac ctgtgtccct gtctctgtag ctcttactc cccaagagcc 3180
 cccagtgct gacaggtgtg ggaaaagtca gggcgaagac gccaggttca gcatgggaaa 3240
 atgggactgt ggaaataaag tatatgtgtg gag 3273

<210> 1411

<211> 3099

<212> DNA

<213> Homo sapiens

<400> 1411

atggaaacgg gaccacgcga agaacctagc ggccgaaaag agtcccagga aatgtgcccc 60
 ccgggattac tggatatttc tggctcctcg gaacaagatg ccaacttggc taagcagttc 120

tggatctcgg cgtcgatgta tccccctagc gaatctcagc tgggtgctgcg cagagacagc 180
agtcagcgtc tgccggtggc gcggcccagg aggagcagag ggtctgaaaa cagccactcc 240
tcgcagtctt ttcaccttgc gagtaacaaa aatagagaca tctttgccga agccctaaag 300
atacaggaat ctgaggagaa agtaaagtat ctccaaaaga caaggtctca ctctgtcacc 360
cagaatgaag tgcagtggca tgatcatggc tctactgcagc ctcaactttc tcggattcag 420
gctaaaacaa gagaagagat tctccaactc ttaagaaaac aaagagaaga aaggatctcg 480
aaagaactga tttcccttcc gtataaacca aaagccaaag aacacaaagc agagtaagtt 540
tacctatgtc aaaaatattc tctcaccttt caacttactg tgtagggaag catttctttt 600
ttcttacttt gccacttacc cttaaactct ctagaaaccc acccgtgtat tacagatttc 660
ttgccttgaa taaactttct tctccgcaca gctattaaag cctgtgtacg aacttgtctg 720
tctgtggaat atgcaagcat aagttagtgc aaaatggaaa gcagctcagc cttgaagctc 780
tgtgcacatt ctctgtccct ctcttctcac cctgggctat ataatcacc atcatcatgc 840
cctcctgact ccactgtccc ctatccacac ctggcccact tctttagtga atcagcacgt 900
gtttgtggct caccagctct gagtgggcta aggttgctaa aactaagttc atgtagcaaa 960
ctctcaatga taaggagta gccttatctc tggaataatg ttagagcagg actaggaaca 1020
gtttaacagt ctagaagagt ttaaaggaaa taagtaagca acagttaatc actaacgcac 1080
ccctaataag aatctgtcc gtttttgtat tatgactaaa aaccaatgtg gccaaactcaa 1140
cattaatatg acaaataatt attttcatac cacattctgg gagaaacaga aagtgataga 1200
attttgattt ttctctcatt ggtattgagg ctaactgcct ttaatgctgt caaagtaaca 1260
cccttaagga agaaagaata tgtctactct aattttgtaa acttctggaa aaaaaaatag 1320
aaagatcatt taatcaccta gctatattat ctacacaatg ctcagcaacc taatttctcg 1380
ctttttagcc agacgatttg acttagcttc cacagatgaa gcaaaactag cccaatcaag 1440
agtgacttaa cgataccaat agtggatgaa gactgctact taaatagcat caatagatac 1500
gtctgggtgc cttagatttc cgcatgtatt ttacagaac attcctgcta ctacccatgc 1560
tgactcacct aataataaaa catttcccgg cttggacaga taattctctt aataatttaa 1620
atgcttactt aattcctttt gtaaactaac ttgtcctac atcctgaagc cttgaatttc 1680
attctattct gttgtgatta tcttctact attaacttct tctagctact cttctttttt 1740
tttttgagac ggagtctcgc tctgtcacct aggctggagt gcagtggcgc gatctcagct 1800
cactgcaacc tctgccaccc aggttcaagc aattctcctg cctcagcctt ccaagtagct 1860

gggattacag ggcgccacca ccatgcccag ctaatTTTTg tagTTTTagt agatacaggg 1920
tttcaccgtc ttggccaagc tggctttgaa ctctgtctcg tgatccaccc atctcagctt 1980
cccaaagtgc tgggattaca ggcgtgagcc accatgcctg gcctctagtt actctttgta 2040
cattctttgg gcaactaatc atgcattact ctgtgcccat attttataat tatttaactc 2100
ttattattgc tttcattatt taacttttct catatTTTT gtattgtctg taactatact 2160
gtaagctcca tgaggaattg ggtcacccaa agtgccagca tactgcttac atgttggact 2220
tcagaaaata ttataacaa aaagtttagt tgaaaaatat catgtaattc agtggttagcc 2280
aatttagaaa gtgatgtttg catactatac attaatttat aaactttaaa aactattcta 2340
ttagacacaa ttgtaaaata actcccctac atacacagac tcccccttac cattcctcct 2400
tcaacaggtc ttcttagtat aatccaggtc ccttctgtt agaaagaagg aaccggaaaa 2460
tgtgttcata gtaaggTTTT agtagcaata tatttattat ccatcccaga atatttgcatt 2520
tttaaaagaa gtctgaataa ataaaataat gggtaaacca aagaaatcaa ttaccaatga 2580
tgaaatctca ggagtctgac tctagaataa acaaaacata ttggggtag gagggctcct 2640
gtacctcaa accacacttc acaatatcat aaccacttct ctcacataca agtttatact 2700
tggttgcaaa acccaacaca tagaatctac aacagtgaat tttattggg agaattttca 2760
aaagttgttt tcatgttaca tcatgttcac aatggcggag ttctgtgtat tggaactgac 2820
tgatattact accaacagga aagtggatc agagtcagat aaagaggacc aagaagaagt 2880
caaaactttg gactaatttg ctgacacat ggcagaggat ggctcactta taccttact 2940
ttggaaacaa cttctctta gatcaggatc attgagatca ctggcaacat tatagtagac 3000
aaagaaatac aagttaaata cgcagacttc caggaatttt accagttagt gagtacttgt 3060
gttaaaataa agaaataaag gttaaatatg caggcttct 3099

<210> 1412

<211> 3807

<212> DNA

<213> Homo sapiens

<400> 1412

ttatcaccag ggtaaataga aaccagtatt attacctaac caaataagaa aaaaagtagc 60
agtaaaaata aatataatga aaagaaaaca attttaaact tttgggctaa ataatgctat 120
tattttccca gagatgctgc acctgagatc tactgtctct ttatcaatag gggatatttg 180
taagtgtctg agaggtgttt ttgtgttttg tctgtttgtt tgtttgtttg tttgtttgtt 240
tttgagatgg agtctcattc tgtcacccaa gctggaggac agtagcagga tctcagctca 300
ctgcaacctc agcctcctgg gttcaagcga ttctcctgac tcagcctccc aagtagctaa 360
gattacaggc atgcaccacc acatccagct aacttttgta tttttagtag agacgagggt 420
tctccaatgt tggccaggct ggtctcaaac tctgacctc aggtgatcca cccgcctcag 480
cctcccaaag tgctgggatt acaggcacga accactgcgc ctggccatct gagaggtgtt 540
aaagacacaa cagcaccag ctaagacttt ctccaaagag tcaaaagaga actgtaaagg 600
aaattgctgt cacattatct ggcaggatgc tgtttgaaac tatgcttgtg ggtgaagtaa 660
acacatcgcc agctcgccgc cccctcccc cgcgcccaa ccacactctg ggaaacttta 720
aggtggagac ttgcagtttc ttccagtcct tcggtcacc ccacctgcac tctcgcct 780
ccagcagctt gcggtaggtg gcgatctcaa tatccaggga cagcttcacg ctcaaaagct 840
cttgggtactc gcgcagcatc cgtgccagct cctccttggc ctgctgcagg gcgccctcca 900
gctcatccag cttggccctg gcattcctga gggcacagtc cccccgctgc tcggcgctcag 960
cgatggccgt ctccaggttg gcacactggg gtcaggaggt agcatttctc cctgagttcc 1020
tccctgggcc tcgcttcacc tctcccatgc tctcaatggt tgagccctcc tctgtcctgc 1080
cccatgtcct ggagcagaga cccagccaca tccagggtgga gtcctgtcaa cctgagactg 1140
agaggcttgc tacgctgggc cccacagctt tatgaaaata atctgcaatt gttccaaact 1200
tcagatggga gctaagggtg agggatgaga gcaggacctc catttgaaga aggggattct 1260
gaaatggatg ctcaagagaa ggagggggca gggggtgcta agcagttcac ccctccctta 1320
ggagtgagta aggaaggctc cagtcccctt cacctgcttc ttcacactct caatctccga 1380
gcgcagtcct tggatgagac gggtcagctc tgagatctca tttttggtgt gtttcaggctc 1440
atcccatgc cggccggctg ctagctgcag ctcttggaac tagaggaaaa ggaaccaaag 1500
caagaacact gactcagggc ttggctggga tcagcctggt acagagactg tgcctgcact 1560
tgcagagcct ggcagagtca cagagagtac atcagttcta ctcagaatgt ggctcaaggg 1620
gaaaacaaaa cagggacctc tcagcactct ggtgtactgc tctgtctctg tcaactgggtg 1680
ctccacccca gcatggccca agatttagga ttgttcctaa agatgtcaag ttatccagaa 1740

agcagagaag gcagaagggc ttctctcttc actccttgta ttttatcttt ggtgcccaacc 1800
ctaaacgagg ggccttctcc tgcttctccg caaggctgtg tgagcaggat gcctccccgt 1860
acactgggtc tgacaccaag cagcttcatt ctgaggcaaa cagatgaaca tcttcctgcc 1920
actcctctgt caagccacac aaagccctta gagtaaagtc ttctttccca gagtcacctt 1980
ctgattttct gcctaaatgc agtggaattt gaagtcagtc acctagattc tgatccagct 2040
gcgtcacttg tcagctattg cctttgtgcc caggagagtg ctgtgctccc agcaagctat 2100
gggccaccac agtgagtcac ggggcagaca agacagagtc tggagcagag ggccctgcat 2160
acttcactat ggggagtttt gcggcctcac cttgggtctgg tacagggcct cggcctcggc 2220
cttgctcttc cgggcgatct cctcatactg ggcacggacc tcagcaatga tgctgtccag 2280
gtccagggtc cggttggtga ccatggacag gatgatggac gtgtcgctga tgtgggactg 2340
gatctgagca gtctcctgca ggggaaacaa ggaagcatga aatgccttct gtgaccagag 2400
aaagggtcca aggtgatggc cctgtcccag agggatggcc ctagaccatc ccacacagat 2460
ggaagctgca ctcccaaag cttgtaagaa cagagctcac agcccagagg ttccaatacc 2520
acatctgaaa actgctgaat gggtttgaag cagcccagga agaaaacagc ccatatgtct 2580
gtccccctgag acaggacagg agtggggaag gtggaagaca acagcctggc tgccacacat 2640
gggacactaa ggggcacagg agcccagaaa tgcttggcca ataggttgag gcttgaaacc 2700
agatgtacat agagaaggca gaagggtat gaggacttcc tacctctatc cctggggatt 2760
cctgccaag accccaggaa acatccccag ccacagagag aagagaagca ggaatgagaa 2820
tatgcttggc tgaagttcag tgggaacctt ttaaggactc tgttttcctg gaggaagtga 2880
aagcaggaca tcctcagggc agtcagggat ggatggggca ccaggataga tggccactcc 2940
cacctttgat ctacaaattt ctcagcacc caatgctgga ggtgccctgg actgcttaag 3000
ttacagataa gtaagaaact gttcatcaca tatctgtcct tccagaagac agagccagag 3060
gtggggcagg gggagcctta cccctcgta cagacacttg aagaactga tttctccatc 3120
cagggcaccc accttggcct gcagctccac tttgctcgtg taagctgctt ccacgtccta 3180
tggagaatcc agatacccct gacctcacct ttcttcaagc ccagacaggc ctctccagcg 3240
aactgacacc tgcaggccct gccctagcta gctgcccagg acttcagatc caaggggcag 3300
gaaccggcct tccagccaca acttcactgt cagactcact gcgaaacctg gggcaagttt 3360
ctcatgcctc tggaactcct tctgcctcta tttctcagag aagggtgtga gactctatac 3420
cccactcagc cagtcattca gccaacagag ggaggcaagg acagccacgg cgatttgcca 3480

gaaactagca gagttggaag gcaaacctgc agccccctccc aaagcctgtc ctgttcccca 3540
 gccagagggg acatgagttg ggactgacta tccacatcta gggttcctgtc cacagacaaa 3600
 gtactgtgtg ctaaaccaac accaggtgtc ccaaaatgtc ccaagcagca agcccttcat 3660
 ctctccttc agcactttgg ccccaggccc ttctgcgggg ggctcagacc tcagctgtc 3720
 ctctctctta gcccagcacc cactgctggg gactgaaggg aacccatgca cctcctcac 3780
 cttcttaagc accacaaatt cattctc 3807

<210> 1413

<211> 3939

<212> DNA

<213> Homo sapiens

<400> 1413

accatcgagt gccacccgg tgcccagctg tgctctggtc ctggcgcacg ttcctctggg 60
 atgtggctg ctcacccgg accggggggt cgccagcggt ccctgcccct gtgcccacac 120
 ccgggctgtt ctcaattgca ctcatgccct tcccattct ctggccaaga actcctacaa 180
 atgtgccc atgcgcgggtc cagggtccag ggattcctcc accgcctgc gtctgcact 240
 gtcgtcctcc ctccccggac tctgcccctc gactgtcgt cctccctccc cggactctgc 300
 cctctcgggt gtcgtcctcc ctccccggac tctgcccctc tcggtgtcgt cctccctccc 360
 cggactctgc cctctcgggt gtcgtcctcc ctccccggac tctgcccctc tcggtgtcgt 420
 cctccctccc cggactctgc cctctcgggt gtcgtcctcc ctccccggac tctgcccctc 480
 tcggtgtcgt cctccctccc cggactctgc cctctcgggt gtcgtcctcc ctccccggac 540
 tctgcccctc tcggtgtcgt cctccctccc cggactctgc ctctctcgggt gtcgtcctcc 600
 ctccccggac tctgcctctc gtgtgtcgt cctccctccc cggactctgc ctctctcgggt 660
 gtcgtcctcc ctccccggac tctgcccctc tcggtgtcgt cctccctccc cggactctgc 720
 cctctcgggt gtcgtcctcc ctccccggac tctgcctctc gactgtcgt cctccctccc 780
 cggactcttg gaactgcgtt tcttccctct caccatcct gaccctaaga agctgagaga 840
 atctgtgccc ctcttggtag actgggaagg cgggggagaa gccctctgc cctcgtcacc 900

cagcaagggc tagtgcagcc tcacgttcat gtggattcac agccagaccc tgttccaagg 960
cagaggcagt ctggtcagga cctggcagaa tacacatggg gtccaggcag ctcccagggg 1020
agatgcccc aagttacctg cgatgctgtt ccggtttgaa ccatgtggat agtttttttt 1080
tttttttttt tggagactga gtctcattct gttgcccagg ctggactgca atggcacaaat 1140
ctcagctcac tgcaatctgt gcgtcctgaa ttcaagtgat tctcatgcct cagcctccca 1200
aatagctggg attgcaggcg cccaccacca cgcctagcta atttttgcat ttttagtaga 1260
gacgggggttt caccatgttg gccaggctgg tctcgaactc ctgacctcaa atgattcacc 1320
cacctcggcc tcccaaagtg ctgggattac aggcgtgagc caccacgccc ggccccatgt 1380
aaacacttta cacgttcaaa atacaattaa aaaaagaaag gaaggaaaat cctgaaatag 1440
aactgagtca gaataagtga ccctccgtgc gtcattgtga tagcataatt acagggaagc 1500
agagttactg tgattathtt taaatgtgga gactgaacat acacgcactg ggaagctctg 1560
gaccctgggc cggggagggc cagggcgggg tggggtggag cagcggctgc cttctccctg 1620
ggcgtggacg tctggtgccc acagccccag ccgcacgtg cccactctt gtccctggtt 1680
ggagccccga cggggctttg ctgctgtaag atgctccctg tggcacctgc agacgggcgg 1740
gttaccacag ggagaccaga gcagcatccg ccctgcagcc agcagcacag gtggtggccg 1800
ggggagctcc tcgtgggacc ccgccttgct ccctgcgagc ccctcgctg gctcccagct 1860
gacccccctg ccctctttac actccccagc tccaccgggg gacggctacg tgcaggcgga 1920
cgcccggggc cccccggacc acgaggagca cctgtatgtc aacaccagg gtctggacgc 1980
ccccgagccg gaggacagcc caaaaagga tctgtttgac atgcgtatgt ggcagcctgg 2040
ggggcgggccg tcatcgctg tggccgtgtt gtctgatggg gggggcacia cccaccccc 2100
actccctacg ggattccctg gtctgatggg ggaggctccc ttctccccgt gagatccttc 2160
aagtcgacgg gtgggacggg gaagcccagt ctgtctcctg tcggaggcct tgtctgatgg 2220
gggtgtcctg gactctgcct taaaaggggc cagtctgaca ggggaggccc attctctcta 2280
gcgaatgcgg ccgagcagtg taatgggtga ggcccagccc ctctacagg accccatctc 2340
ccggggcctc cctgctgaac cccagctctg gttgggaatg ccgctggccc ccgctctgtg 2400
agaagctcca ctctctcggg ggtaaccac ctgcctctgt cggaaccccc ggtctgaagg 2460
gaggaggctt gtcattcctt gaaagaatgg tcagtgtggg gggaggctgc ggccccgtct 2520
gtgaggccct ccagtcaaca ggggaagcca gaccctcgcc ccatgggact ccttagtctg 2580
agaggggagg cctcgtcttt tctctgtggg aatcccggcc tgctgggacg actgcctggc 2640

ccgctggtct tgcacgctga ctctgggtct ccctagtctg atgagttttc tcttcacgtg 2700
actccgggggt ctgaggattc ttcctacgga aatcccggcc tgatggggga ggcacagctt 2760
cctgcttgaa ggaacgcca gtccaatgag ggaggcttag tccacctctg gacaaagtgg 2820
ctagtctgac ggtgagcccg ttccttctt ccccgtaggac gaccagccc gagggagccc 2880
ccagccgggc ggaggaggct tgtccttctt tggctgaggt gtccagagtt ctctcctgat 2940
ttcctgcagc ctcgactctg cccttctcca gcacggagag gtgttggctc tgagctgccg 3000
ggtaggggtcc ttgcctgagc tcaggatgcc tcccaagcta actgcaaatt tctccctttc 3060
ctccaccacc tgacaaagca gcttctctc agcttcacaa taatgacacc atctagcacc 3120
tagtgggcgc ctgctgtgta ccaagcacta cgtgaagagc ttgctcctct tggctcctca 3180
cagcagccct cagatgggaa aggaggggct tggggctctg agcttcctc tgaggcaggc 3240
tgtccctcag ggtgaccaga ctgccaggca gccccggttg aggaagggtg tcttctcgtc 3300
cgctctccac gaagagtcct ggggctgcct ctgattcgcc acgtgctcgt ccccaaacca 3360
gtcgctggct gggaggggga ggtgaacatg ctgactggcc aggctgggag ttggagctgg 3420
ctcagcccc agggtcagg ctggaggacc ccccaggacc aggagctgga ggggcgggag 3480
accagggagc gagggtcagg gcgggaggac ccccaggac caggagctgg aggggcggga 3540
gaccagggag tgagggtcag ggcgggagga cccccaggga ccaggagctg gaggaattca 3600
aggccgcccc agccacgggt agatgcatct ccgtcagggc tggggctcca gactgcagg 3660
gtctgaacca tgctgctttc tgcctgggga cagcccacc cctgtttgac aatgagggga 3720
ctgacactca gaggagagcc ttagagtggc ctgtcggatg ttggcattgt tggaagccgt 3780
tagaaaaccc agggcagaac attttaacgc taggggcaag agaggggtgc cggctgtcgt 3840
cttaagtatt tagggcacat tggaggcccc gcggccaatg cagtaagacc agacaaggaa 3900
acgagaggcg tacgctttgg gaaggaagcc caccacaag 3939

<210> 1414

<211> 3100

<212> DNA

<213> Homo sapiens

<400> 1414

acgcgccccca gctcccacct tgggtccttc gcctgcaccc agtctaacct ggcaccta	aaa 60
gatttcactc tgtccttggc ccctcaccat tgtctcagag ttttaagcctt aacggatgaa	120
ggaaaaagat tatttgtgag aagaaattat ctaacacttc tcatctatct aactggagtt	180
tcactagctg gagtttttct ggttgggtgta ttactttatt cagtataat atgaaaatta	240
ctatcttcac tgaaggatct actgaataat cattttaact caactatatt gcattcttga	300
aagcaatcct ttcaattgat ctactgactt cacaatgtct gaaatcagat tcaccaatct	360
catttgggat caagttataa cactggatca agtgtagat gaagtaattc caattcatgg	420
aaaggggaat tccccacaa tggaggtaaa accaaaagac atcattcatg ttgtgaaaga	480
tcaactcata gggcaaggaa ttattgttaa agatgccaga ttgaatgggt ccgtagcaag	540
ttacatactt gcaagccaca atggaatcag ctataaggat ctggacgtta ttttgggtgt	600
tgagcttcca ggtaacgaag aatttcaggt tgttaaagat gcagttctag actgtctact	660
tgacttttta ccaaagatg taaagaagga aaagctctcc ccagatatca tgaaagacgc	720
ttacgtacag aaattgggtca aggtttgcaa tgggcatgat tgttggagtc ttatctcct	780
ttcaaataac actgggaaga atttagaact aaaatttgtg agttcactca gacggcagtt	840
tgaatttagt gtagattcct ttcaaattgt tttggatccc atgttagagt tctacagtga	900
caaaaatgcc aagctaacca aagaatccta tcctgttgtg gtagctgaaa gcatgtatgg	960
agacttcag gaagcaatga cacatttgca acacaagctc atatgtacca ggaaacctga	1020
agagattaga ggtgggtggc ttctgaagta ctgcagcttg ctggttcatg gcttcaagcc	1080
agcctgtatg tcagaaatca aaaacctaga acgttatatg tgctctagat tctttattga	1140
ttttcctcat atagaagaac agcaaaagaa aattgaatca tacctccaca accatttcat	1200
aggtgaagga atgaccaagt atgactacct tatgacctg catggagttg tgaatgaaag	1260
cactgtttgc ctcagtgtt atgaaagaag acagattctc cacctgatca ccatgatggc	1320
tttgaaagta cttggagaac taaatattct acccaatata caaaaggtaa cttgctttta	1380
tcagcctgct ccgtactttg cagctgagggc aaggtaccct atttatgtaa tacctgagcc	1440
acccccggt agcttcacgc cataccaccc actgcacttt cgtggatcaa atggtatgag	1500
ttaaaaaata cacatgcaac catagaaact ttgatttaat taaacacat taaaagcaa	1560
gtttccaaat gtaaaattca agatctgttt ttattttgta cagtcaccaa ttattttcaa	1620
ttacagttaga tggaatagta gttaccaact atttttgatc aattaagcca tcatagtaaa	1680

tacaatatct ataaaccaac cactttaaat gtttttcaaa cgttattgac tagctataat 1740
aactttcaaa tgttgtgttc cccttgaagt gattttcaaa tcttttgact acttgtgact 1800
ttcaaattta ctgtgacaaa tatattagag atgcctgcat ctttgactat aacataaaag 1860
gacagattca tgttttaaaa ttaagatgta cagtgaagta tcaaattttt tatattcagt 1920
cagttccttt gttacattta gttctttttt tctattgaac aataccatca ataaatgttc 1980
agtacttaac agaaatgcct aatttcaaaa gcaacagatt cagaagacat taaaaccctg 2040
gacttttcaa gcattttttt ttgacaatta aattgggttg gatacaaaaa tcctactata 2100
gtttaagga atactggaaa aaaatggttc tggaaagccc tggacattag taatttgtca 2160
tctatataat aaaacattta gttaatgtt ggatttgaat aacaatacca tacagctgtg 2220
caactactac tgagatcaga tacagggttt ttgccccctc aaaataagtt aaaacgaatg 2280
aaaatgacca gctctgaatg tgaaagcttt ctatcatcat ctactacaaa gagactctaa 2340
atggcaaaca ggaaaaaac aggcagaggt ttatagccat agcatttacc attttatggc 2400
ttatttgaaa aacatcttta tgttgagaaa cattccattt cagtaagtta aaatatattc 2460
attgtaacta aatgaagcag gtttttcatt ttgcctttac caaagatcat tttctaacat 2520
gccactcaag tgcctcttcg tgtgaatttt tgcgtaaac tataatttat tcaacaactg 2580
tataccttta cagtatatct aaatatatac ttactacatc gagtatactg ctagaaaaat 2640
ctaccagtgg gattaaaaat gtattttctt ccataatga aaataattca tgaccaatat 2700
tacctgaagt gtcagaagag gagctgtctt aaattaatat ggatcaggcc attggaaaac 2760
ttcagtattt ccacttggtt atgatttttt gtgagtttcc atttcagttt ttattgacca 2820
tcacgttttc tatcacaaca tgacctgaca gttgtatccc gataatttgc cagttataga 2880
ctgtgcttat cttcactgta ttacaatatt ggacagaagt acaccaaata cggcattttc 2940
aaataaccaa tatttctgag atgttttata ccacagcaca agtggccatc agtatatttt 3000
taaagaatta tatatcacag aaccctgagg ctttaaaaca ctatagactt accactttct 3060
tgacaaagaa tttgtaatta caataaaata tttagaaatg 3100

<210> 1415

<211> 4276

<212> DNA

<213> Homo sapiens

<400> 1415

acgcgcgttc	agacccctgg	cctcgggaag	tccgccggct	gcgggggttg	gggccaaccg	60
ttctgtgggc	ggagtcctct	cgcaacatcc	gccaggtagc	ttctcagttg	ctgcccctag	120
ctctaggagc	tcctgagtgc	acacgccgta	cccgtccctt	gtcgggaatc	ctgtcgcagg	180
tttttaagca	acagtcctca	ggagggccaa	gggagtctga	cggtgatgtc	ttcccccagg	240
ctcattcccc	tgtggaaaga	tttaaaactc	ctcctaaatg	acaccataaa	taaaagcaag	300
caaccttcgg	aagacccaaa	gaactgcctg	attgtgctga	gtgaccggtc	ccaggctgta	360
gcatggatga	agagcaaaac	tgaggacatg	gttgagaaaa	gaacattctc	catgactgaa	420
cgattgccac	ccatccagtc	catgggccat	gcaggctcct	ttcatatcct	cgtgggtctac	480
tgtggtgacc	tgatcctgcg	actctttggg	gaccactttc	gggcattcaa	acccttgggt	540
aaagtgcctt	gccgcttcaa	catcagctgc	ctctgctatg	accgggaaat	gaagatgctt	600
ctgtctggca	tcctgggggc	agtggtgacc	tgggtcattg	agctagggtg	cacgggcctc	660
caaatagccc	acatgggtctc	catgccaggt	gatgagcttg	tccaggacat	cgtgctgaat	720
ggccccagtg	gctccctcct	ggccctgtgt	gaggcggttg	tgagggtcct	tatgcaccag	780
ggcaagggcc	agctgggaga	ggtaaagagg	ttcacgtcca	ccagcagcgg	ctcctccatc	840
acctgctgct	tcacctgttt	tgatcagggc	tttctctatg	ctggaaacca	agctggggaa	900
atccaagttt	ggagcctcca	gcagggccat	ccactccaca	gtttccaggc	ccatcaatca	960
ggagtgatct	gtatccgcag	ccgaccagag	gcccacaccc	tgctaacagc	tggtagtgc	1020
agcctaata	aggagtggaa	cctgacttca	gggagcctgc	ttcggcggct	agagcttgg	1080
gaggagttaa	accggctcca	gtttattgac	agcattactt	tcttctgcca	aactgccc	1140
agtttttct	tgcaccgcct	gccctgcttc	tacagcctct	tcaatgtctg	tggtctgct	1200
ccccagcagt	tgcgtcgggt	ctgctgtgga	aataactgg	tccggatcct	gtgtaccact	1260
gaggatggct	tgttgcgctt	tgtgtcccca	gtaacagggg	accttctgg	tatcacctgg	1320
cccttctcaa	tcctggacca	ggctgtggat	tgggcctacg	accaggttaa	agaggagctc	1380
ttttagcaaa	caggcagctc	agaggttctg	gtatttgaca	caaccgctg	cccttgccca	1440
gccaagtatc	tcttaggcac	ctcaccaaat	tctcaggact	ttgtacaatg	cctggcttat	1500
gggcatttca	acttggggcg	gggtctagag	ggactgatat	tctctgggca	ccagagtgg	1560

gtgataagag tgctctccca gcacagctgt gctcgattag aaaaattcat gcactttggc 1620
gctgtactgg cactctccac gctgtctgga gggatttttg gtggccaagg aaactctctg 1680
ctctgttcct atggaatgga tgactatgtg cacctgtcag aagctgtgct tgatgggggtc 1740
aaagtacaac tgcggcctct cgccagcatt ctcagcagct gtcacctaac acatctgata 1800
ctcttgccca agtctgtggg tgccatcaca gagacaaact gcctgctct ctggaagttc 1860
catgattttc tgtcctctgg gtcacagaat ggcttgaaat tcatagaaac actgcctctg 1920
cacctgtgtg ccatacacatc ctttgatgtc tgcctctcct tgagtctttt tgtcacaggt 1980
tctgccgatg gctctgttcg gatctgggac ttccatggca gactcatagc cattctggac 2040
tcatcactgc actttggccc agtctgtttt gcaaataacc ggggtgacct gcttgtgact 2100
tttaaccaga gtctttacct agtgtctctgt ttaaaattgc ttccccagc cctgctgact 2160
cgcctttcct ttatgagcat atcagatgaa gtactggaag tccctaagcc tttcatacca 2220
agcttcttct tctcctttga gaccatgttt gtgcccaggt acatctacc tggacaagcg 2280
caacagaaat tagtgggtct ggagaaactt gtcaacaacc gggccattgc ctttgaccat 2340
tctgtgccac atgtgataga agaagatgag gaagggagcc cagtgttact gcgttcctcc 2400
atgcattatt ctttgagga catggaagat tggatgcagg tgagcaaacg ttaccaatgc 2460
cattatgtgc ttctcccca gctacaactg actagctggg atggactcaa cccctatcag 2520
atattgcat actactttgg tcatgggcgg gaatggcttt ttgcccctga ctgctatata 2580
cccaattcag tgattcgtgc ccgtctttgg ccagagggca cccaatata cctacagtgc 2640
aacctgcatg caccagcg ggagctggaa tgggacaggt ctcaagaatt ctttttctgg 2700
cacagcagg taagagctat aagtaataca gaatatccaa agaataagga ggaggatgaa 2760
cacttcctag aatgagact ttccaaggat gtaacctaca gtgtccttac agatggagca 2820
aaccgaagt ggctgggaag aaagatgagt gaaataacca ttaatagcat gattgagaca 2880
atgctcaata ttatggtcca tgcttccttg ctgaagtacc agtgctgtgt tggatgacta 2940
gggcaaactt ttgcctctta ccaggtgtcc ccagccctac gctctgagac agcccgtcgg 3000
ctactgaatg atacaaccaa ttccaaccg ctgatccgag aactagcttg ggaagggctg 3060
aagcgtctag gaatgattac tcatcttttt gccatgcctc tggctcaagg attaattggac 3120
aaggatgaaa gagtgaggat caagacccta agcctcatgg ctgagattgg aatccactct 3180
aggacctcac tcttacagct gacccaaaaa caagagactt ttcgggagat gcagcagcag 3240
atgatcgggg aggaaccct ggaccatcta ctggggatgc gggccacaga tctccaaatc 3300

ctttccactc aagtggagca gagattgaat gaaaacctga ccctgtcaca tagagatgaa 3360
 aagccagctt tttctttaga tgtctcaatg ccttctgaac ttaaatectc cctgaaacct 3420
 cctacagttt ctgaagaatc tgaagtggcc atcaagccca gcaaaggcca aagacgaggc 3480
 caagcagggg tcaaaaagca tagccaaaaa tggttgcggg gtctcaagaa gacgaaagag 3540
 agagactcta aacagatgag cacagagcca ggcctcttag aggatgaaag tgggactgag 3600
 gccgcaccaa ttgagatgga ggaagcatcc gtctattccc aatggtcttc aagcaccagt 3660
 gtaataaagc tctcaaaaga tgttgattct caagagaaag atatctcgaa ggatcacatt 3720
 gcattgaccc tgaagaggct gcagaaaata cgtgacaaaa gagacaagaa agcaacagct 3780
 cagaaactca aaaagaagca caaaaagaag ggaaaagaag ccaaagttat aaatgaggaa 3840
 actacacctc ctgtaatgga acagccagtt actaaaaagg ttaaaatcca agggcgggga 3900
 gcctctggaa tatctggccg caggtcaacc gctggagatg gctcatcatg gagggacgat 3960
 ctatgtcgtc ttatggccct gaggatatct ggttcccaaa caaaaatgtc agaaaaccta 4020
 aacgctgagc tagtgacatt tgctcaggag atgctggtag ataggcacc cagctgggaa 4080
 ctctttcagg agatctgccc cctattgaag aaagaaagta aggttctgct tgaggacctt 4140
 gattgggatg tagtcccgcc agagaagaaa ccaattttta tccaggaagg agcaattaga 4200
 gaggacatga tacaaggtgt gaccaagag gtgatcagac acaaggaagt gatgccaagg 4260
 gaagaagaac aagcac 4276

<210> 1416

<211> 3676

<212> DNA

<213> Homo sapiens

<400> 1416

gtaagttgaa gcgggtcagc ggcacggaag ggttgctcca ggtgggatag gaaattaaaa 60
 agcgtcagat ctggaagggg ctttatatgc tattggcccc ttctgcttta cggatcggt 120
 aattgaggcc tggagcggga aaaagaatgg aagaccctgt cgtcctcgtg ctttcccaag 180
 gcttccgaag cgcgcacaca cgcacacacc tcgatttcgg ggctgcctct atagcctcag 240

tccgtaaaat cgtatcgcta ggtaggagtgt gtgctctaac tgtccagtcc cctcgctcac 300
ttcctcttct atccgtgccg ctttcagccg ttctttgccca agttccctcc gaagtcctct 360
gagctcctgc attgtagcgg gaagcggcat tgagcatcat ggataccgac ttatatgatg 420
agtttgggaa ttatatggga ccagagcttg attctgatga agatgatgat gaattgggta 480
gagagaccaa agatcttgat gagatggatg atgatgacga cgacgatgac gtaggagatc 540
atgacgatga ccaccctggg atggaggtgg tgctgcatga ggacaagaag tactacccaa 600
cagccgagga ggtgtatggt cctgaggtgg agaccatagt tcaagaggaa gacactcagc 660
ctctcacaga acccattatt aagccagtga aaaccaagaa attcactctg atggagcaga 720
cattacctgt tacggtgtat gagatggatt tcttggcgga tctgatggat aactcagagc 780
tcatcagaaa tgtgaccctt tgtggacatc tccaccatgg caagacatgt tttgtggatt 840
gtttaattga acagactcac ccggaaatca gaaagcgcta tgaccaagat ctgtgctata 900
ctgacatcct cttcacagag caagagagag gtgtaggcat caaaagcact cctgtgacag 960
tggtcttgcc agacaccaa ggaaaatctt atctcttcaa tatcatggac actccaggac 1020
atgtgaattt ctctgatgag gtcacagctg gcttgccgat ctcagatgga gtggtccttt 1080
tcattgatgc tgctgagggg gtgatgctga acacagagcg gctgatcaag catgcggtgc 1140
aggagaggct ggcagtcact gtgtgcatca acaagattga ccggctgac ctggagctga 1200
agctgcctcc aactgatgct tattacaagc tgcgccacat tgtggatgag gtcaatggat 1260
taataagcat gtattccact gatgagaacc tgatccttcc cccactcctg ggtaacgtct 1320
gcttctccag ctcccagtac agcatctgct tcacgctggg ctcctttgcc aagatctatg 1380
ccgacacctt tggtgacatt aattaccaag aatttgctaa aagactctgg ggtgacatct 1440
acttcaaccc taagacgca aagttacca aaaaggcccc aactagcagc tcccagagaa 1500
gtttcgtgga gtttatcttg gagcctcttt ataagatcct cgcccagggt gtaggtgacg 1560
tggacaccag cctcccacgg accctagacg agcttggcat ccacctgacg aaggaggagc 1620
tgaagctgaa catccgcccc ttgctcaggc tggctctgaa aaagtcttt ggcgagttca 1680
caggctttgt ggacatgtgt gtgcagcata tcccttctcc aaaggtgggc gccaaagccca 1740
agattgagca cacctacacc ggtggtgtgg actccgacct cggcgaggct atgagtgact 1800
gtgaccctga tggccccctg atgtgccaca ctactaagat gtacagcaca gatgatggag 1860
tccagtttca cgcctttggc cgggtgctga gtggcaccat tcatgctggg cagcctgtga 1920
aggtactggg ggagaactac accctggagg atgaggaaga ctcccagata tgcaccgtgg 1980

gccgcctttg gatctctgtg gccaggtacc acatcgaggt gaaccgtgtt cctgctggca 2040
actgggttct gattgaaggt gttgatcaac caattgtgaa gacagcaacc ataaccgaac 2100
cccaggcaaa tgaggaggct cagattttcc gacccttgaa gttcaatacc acatctgtta 2160
tcaagattgc tgtggagcca gtcaaccctt cagagctgcc caagatgctt gatggcctgc 2220
gcaaggtcaa caagagctat ccatccctca ccaccaaggt ggaggagtct ggcgagcatg 2280
tgatcctggg cactggggag ctctacctgg actgtgtgat gcatgatttg cggaagatgt 2340
actcagagat agacatcaag gtggctgacc cagttgtcac gttttgtgag acgggtggtgg 2400
aaacatcctc cctcaaagtg ctttgctgaa acgcctaata agaaggacaa gatcaccatg 2460
attgctgagc ctcttgagaa gggcctggca gaggacatag agaatgaggt ggtccagatt 2520
acgtggaaca ggaagaagct gggagagtct ttccagacca agtacgattg ggatctgctg 2580
gctgcccgtt ccatctgggc ttttggccct gatgcgactg gcccacaaat tctggtggat 2640
gatactctgc cctctgaggt ggacaaggct cttcttggtt cagtgaagga cagcatcggt 2700
caaggtttcc agtggggaac caggaggggc cccctctgtg atgaattgat tcggaatgtc 2760
aagtttaaga tcctggatgc ggtggttgcc caggagcccc tgcaccgggg cgggggccag 2820
atcatcccca cagccaggag agtcgtctac tctgccttcc tcatggctac tctcgtctg 2880
atggagcctt actactttgt agaggtccag gcccctgcag attgcgtctc tgcagtttat 2940
accgtcctgg ccaggcgag ggggcacgtg actcaggatg caccatccc aggtccctt 3000
ctgtacacca tcaaagcttt tatcccgcc atcgactctt ttggctttga gactgatctc 3060
cggactcaca cccagggaca agccttttct ctgtctgtct tccaccactg gcagattgtg 3120
cctggtgatc ccctggacaa gagcattgtc atccgcccc tggagccaca gccagctcct 3180
cacctggccc gggaattcat gatcaaaacc cgccgtagga agggcctcag tgaagatgtg 3240
agcatcagca aattcttcga tgatcctatg ttgctggaac ttgccaacaa ggatgttgtg 3300
ctcaattacc ccatgtgagt gcgtggactc ctgggagctc ctgctcccta cagtgggctg 3360
caactcctgt acttgaagct gagacctcat atgacgtggc ctctgtgttg tcagagagtg 3420
tctggaagct gctgttgcca tcttgaacaa ctaccaaac tccaaccag agccccagtg 3480
agagaggagc atttggcctc ctgcttcctt ctgtggcctc tgccgggctc cattcccaag 3540
gaaaagagag gagcttgggc tcacagaaag agaaggggat gaaaccccaa ggggccctat 3600
ctttgggatt tacatggaat tttatcttct acaagtttga ccttagccat ggtttgcaag 3660
tgaacagaac attctg 3676

<210> 1417

<211> 2884

<212> DNA

<213> Homo sapiens

<400> 1417

ttcctgttgc ccggcacagt cgccgggagg aggctgtgaa ggggtctggg ctcctgaggc	60
tggcgaggtc cactgtggcc aggggggtccc tggaaaaaac ctgacggtca tgaggtcggga	120
gccccggagct gagtggccag cgtgccatgc cctgctgcgc ccttgggggca caggccccac	180
ctgccccacac cccatcccca ctccccatgt caggccaagg ctgctgagct gcccttcccg	240
tcccggcaga gtgccagggtg gcagtcctgc tggacctggc acggtcctac cagagcttga	300
agaggcacat ggagagcgtg gagcacagga ggtgcctggc tgcctggaac ggggtgggcag	360
ggatgctgag gatggagagg tcagacagac gggcgtggga cccacaaggg aggagggacc	420
tggggctcggg tttcaagaac ggtgagagct gtcagggtgc acatgcgttc cagcagttgg	480
cgagggtgtgg ctgtgcatgg ggagggggggc ggctcagccg ggcccctggc accagcccac	540
gggagccggg tccccacagc gcctcacagc tgtccctgga ggagcccgtt gaggcggcca	600
tcctgctgag cctggtgggc gtcaagagca tcctggcaaa ccagtggccg acgctgctgc	660
aggacaacgc gctgcgggcc agcgtcttat gggaaagtgc gtgggcccct ggcatcccgg	720
gcctgtcccg caacccttca gcaaggctgc cagggtgtcc atgccctcct gagatgttct	780
cccctagatc tggtggccgt tgggaagcca attggagaaa cggcgtcgtc ctttcagaag	840
atgagtggcg acgaggcggg gaaccaaggt aaggaggagg cggcctgcac cccgcggcct	900
tcagcacctt ctgcagccac tgcccatggg gcacgtgcac tgcacagccc tgcagggaca	960
ggtgtctccg cttctccgtg ggggacctgg gactccagac gttaactagg agccggaaag	1020
agggaggggt tggtcttgcc tggaagttgc ctgcgtctct gtaccacccc agccccccac	1080
cgtggcgcga ccctcggcag tgacggccca cagtgccacg tggctccaga acccagaggg	1140
aaagcatcac gggtcctcgt tgacagctcc agtcacacaa tccccacgag cccaggggct	1200
gtctgggaac cagtgggaaa tccaggtggc agctgtgcct ggccccctcc ccaagcaagg	1260

actcctaggg ggccgacagc ttgcaccaca gtgcccgcagc gccccttgat atgaccagga 1320
gtcccagccc aggaagaggc ctcccgaag aggaatgcat ggggtgaggg gtgtctccca 1380
ttggcgctct ggagagcagc ctgcctgtca catggcatcc agcgcccgtc cctctcttgg 1440
cctcacaggg gaaaagtcgg gaaggggcac gggacatggt ctgttctcaa acacggacag 1500
acggaacccc acccagccgt ccttcagagt cagcaaaacc ctctgccac ggtgaggcgg 1560
gaggagccag aaaggagctt cccgggaccc cggggaggag ccacagagga gcttcccggg 1620
accctgagtt gaggcgctca gcggtgcacg gaggggggtg tctgccctga ctaagaaggc 1680
ttcccccaga ggccttcagt atccaccgt caccaggagc ttatcgtgta aagagcacgt 1740
ggtccacggt ccgggggatac cgggtcccaag gatccctgct tgttggggga gagagggagc 1800
gagggggcagg aggaaggcag acggaaccca cactcatccc tgcaaagca gagcagggca 1860
cagacacgga tgccgccgtg atgtggccag tgtggggccc acacgatgcc ctgctgggga 1920
atcggggaag ggcagagcca ggctggctgt cccgctgctg ctgctcagcg atgacctgca 1980
agttctggtc cctgcaatgg aggcatgagc ccagtactg tcaactgtca aaaggggcag 2040
aggctgctgc ttctgcaag gccgcagcca cactctagac gggcgcccc ccagcagagc 2100
agctcgctg gccaaagggt agagggggat ggtgggcttc ggatcggggg tccagtctg 2160
gtgccgtcac ccggctgcgc gggcctggac acctcggtgc gggaggggtg cgggtggtgg 2220
gggcgccctg gaggcctggc gaatggcagt gtgttccca gagcgccctc agtcggagca 2280
gctgccactt cccgccctg tgccctggtc ctaccgggc tggacgtcct gcggggcctc 2340
ggggttcata gctccgccc ctttctccac aggcgaggct tctcagacct tgaaggacaa 2400
gctgctgctg ctccaaagct ccgagctcct tcccaccacg ctcaacttgg tcctgtatgg 2460
gctgccgcac caagccatcg ggtagtgcag gcctggacct gcctcccatc agctgctggg 2520
gccccagcac ttgcctctgc ccttggctct gccctctgc caaccatcc ccacctccg 2580
gctcccatcc ccagctcca gctcgctctc ccttctctgg gcctctccc agcccttgg 2640
gcagcctcag ccagggaccc tccccagcg acttcccga aggcagccgc ctggacctcg 2700
agctctgcct gcctgtgtgc gccatgggggt ctgcgtcggg gctggagctg cgtctcttcc 2760
cggggccagg acaagggcgg cctccccttg gcggcgctgg tgctgagttg cttagaccag 2820
aagactattc agaccgtgag cctgtttttg atttgagtgt tccactaaac aaacaacaaa 2880
agcc 2884

<210> 1418

<211> 3842

<212> DNA

<213> Homo sapiens

<400> 1418

gtgacctctg attttccctt tgattctgta attgaagaag tatcaccagc gtctagtcct	60
gaacctccag taccagttaa agagacacga ccatatcagg ctgtgactcc atgcatttta	120
aaacttcatg gtacacagtg tgagaagagc aaccaaattct cccaatgtga gtcagaagac	180
ttaggcataa cagaaaaaga aaatgttttt gttggctcta cccatccagt ggggcaagat	240
aactttaccc aggtacaaca aatgcaggtc tctgccgaaa tgcctctaata attactgat	300
catccaggaa gaacaggtag accaaccctt cctggtaaag taactgagga aattgtctca	360
agtgagcatg atgagggttt atctttctca ggaaagggtgc agtgctatgg tagggagtta	420
aaccagcctg cctcagctgc caaatgcaca ggtgacttca gtccttctcc tgaaaaactg	480
gtaaaatcag gaaatccatt gcagccagtt agtatagaga atagaaattt ggacttaaaa	540
catcttgtct tggagtccag tgaacctcca tttggctcta gaaatgttat tgaaaataag	600
tctttgtctg acacattggt ttccacaact gcaccaagtg gtatagtga tgtgtcagta	660
aaacagcaga ctagccctaa aagcagtcag aaccatctct tccccggtga tttgaaaaca	720
gatgaaggca tttatctgca ggtgaagtcc ttgacagctg cctcggttga tggagcttat	780
tctacacagg gatgcatgtg ctcagtggtc cccacgcttt gttcttcctc agacaatgct	840
acattaaccc attatgtaag accaataaat gcagagccag cgtttcaagc acaggaaata	900
ccagcaggca gaatggccag tttgcttaag aatggtgagc ctgaagctga gttacataaa	960
gaaaccacag gtccaggcac tgctggccct cagtccaaca ccacatcttc tctaaaaggt	1020
gaacgcaaag ccatccacac gctgcaagat gtgtcaacat gtgaaacaaa ggagctattg	1080
aatgtcgggg tttcctccct ttgtgctggt ccctaccaa atacagcaga caccaaggaa	1140
aacctcagta aagagccttt ggcctccttt gtttcagaat cctttgatac ttctgtttgt	1200
ggaatagcca cagagcacgt agaaattgag aacagtgggg aggggctcag ggctgaggct	1260
ggttctgaaa ccctaggcag agatggagag gtcggtgtga attccgacat gcactatgaa	1320

ctctctggag attctgatct agacctgctt ggtgattgta gaaatcccag actggatttg 1380
gaggattctt atactttaag aggtagttac accaggaaaa aagatgttcc cacagatggc 1440
tatgagtcgt cgttgaactt ccacaacaac aaccaagagg actggggctg ctctagctgg 1500
gttccaggca tggagacgag cctccctccc gggcactgga ctgctgcggt aaagaaagaa 1560
gagaagtgtg tgccgcctta cgtccaaatc cgagatctcc acgggatcct caggacttac 1620
gccaacttct ctataacaaa agaactcaaa gataccatga gaacttcaca cggcctgagg 1680
aggcacccga gtttcagtgc aaactgtggc ctgcccagct cctggacaag cacttggcag 1740
gtggcagacg acctcaccca gaacacttta gacctggagt atctgcgttt tgcacataaa 1800
ctaaaacaga ccataaagaa tggggattct cagcattctg cctcctctgc caatgtcttt 1860
ccaaaggagt caccaacca gatctccatt ggtgctttcc cttcgacaaa aatctctgag 1920
gccccatttc tgcctcctgc acctaggagc agaagcccc ttcttgtaac agttgtggag 1980
tcagatccca gaccacaggg gcagcccagg agaggctaca cagccagcag tctggacagc 2040
tcttcctctt ggagagagag atgtagtcac aatagagatc ttagaaattc tcaaagaaat 2100
cacactgttt cattccacct caacaaactg aaatacaaca gtactgtgaa ggaatctcgg 2160
aatgatattt cacttattct caatgagtat gctgaattca acaaggatgat gaagaatagc 2220
aaccaattca ttttccaaga caaagagcta aatgatgttt ctggagaagc cactgctcaa 2280
gagatgtatc tgcctttccc aggacggtca gcctcctatg aagacataat catagacgtg 2340
tgcaccaatt tgcacgtcaa actaagaagt gttgtgaaag aggcttgtaa aagtaccttc 2400
ctgttctacc ttgtcgaaac agaagacaaa tcattctttg taagaacaaa gaaccttctg 2460
aggaaaggag gccatacaga aattgaacct cagcacttct gtcaagcttt ccacagagag 2520
aatgatacac taatcatcat catcagaaat gaagatatat catcacattt gcacagatt 2580
ccttctttgc tgaagctgaa gcatttcccc agtgtcatct ttgctggagt agacagccct 2640
ggagatgttc ttgatcacac ctaccaagaa ctgtttcgtg caggaggctt tgtgatatca 2700
gatgacaaga tactagaagc tgtaacatta gttcaactga aggaaattat caaaatcctg 2760
gaaaaactaa atggaaatgg aagatggaag tggttgcttc actacaggga aaataaaaag 2820
ctaaaagaag atgaaagagt ggattcaact gcacataaga agaacataat gttgaagtca 2880
tttcagagtg caaatatcat tgaattgctt cattatcacc agtgtgactc tcgatcatca 2940
acaaaagcag aaattctgaa atgtttgcta aacctgcaaa ttcagcatat tgatgccagg 3000
tttgctgtcc tcctaacaga caagcctact atccccagag aagtctttga aaatagtgga 3060

atccttgtta cagatgtaaa taactttata gaaaacatag aaaaaatagc agctccattt 3120
 aggagtagct attggtgact caactacagc ctgcctggat atggatgatg ccaataaaaa 3180
 attagtatTT tccctttgga aaacttgtga acatgtgaat acacatgtga agtcttacat 3240
 ttgaaaaacc aatgttctac aacttggaaa gttttcattt tttatatTTT gctgaaatat 3300
 gtcacagtgg cattgcagtt gtctgttagc tttgggttgc agtgctagat attgttttaa 3360
 attatTTTca ttttaaaca gatgccttct aagctattga gcttattaaa aataatttta 3420
 catgtttact tagttggagc aaaaataagt ctattttaac aaatagcttt gtttttgcac 3480
 gctaagtca gaaaggcata cgatgcacat tatgtctgt tttaaaggtt ttaccacct 3540
 tgtaaaaact ataatcttaa atggTTTTat ttgctgttac acaaacaaca ctacataaaa 3600
 cattttttcc taaatggtac aaatttataa actatcattt ttcacttacg gtatttgtaa 3660
 atactacact acaaaaatca gctttctgag aaagaaataa tcattttatt atgatattga 3720
 aaatttctac agtaaacact caaaaccaag caaaaaacat ttgtaagata cacggtatct 3780
 atttggagca acggtTTTTg taactaatgt gtttcatttt ttaaataaag acaactaaaa 3840
 at 3842

<210> 1419

<211> 5666

<212> DNA

<213> Homo sapiens

<400> 1419

gtatatgaat ctttgaacc agactttgga caactaaact ctatctctgt ttttccttac 60
 ttcacagaca taactaaaat gtcctttgag gagctttgct acaagaacc aaagatggcc 120
 atacagaaga tcagtgatga ctacaaaata tactgtgaga aagcacctaa aatagatttt 180
 aaaatggaaa ttatcaagga aacaaagaca gtttcacgct caaataggaa aatgtccttg 240
 ctcaaaagaa ctcttgtaag gaagccatca atgagacca gaaacttgac agaagtcctc 300
 ttaaatacac agcacttgga gttcttcagg gagttcctca aggaacggaa ggctaaaatc 360
 ccattgcaat ttctcacagc tgtacagaag atcagtatag agaccaatga aaagatttgc 420

aagtctctca tagaaaatgt aatcaagact ttctttccaag gccaaactctc tcctgaagaa 480
atgctgcagt gtgatgcccc tattatcaaa gaaatcgctt ccatgcgtca tgtcaccaca 540
agcacactgt taacgctcca gggacatggt atgaaatcta tagaagaaaa gtgggtttaaa 600
gattatcaag acctgtttcc acctcaccat caggaggtgg aagtgcaaag tgaagtacaa 660
atttcgtcta ggaagccctc aaagatagtg tcaacttacc tacaggaatc ccagaagaaa 720
ggctggatga gaatgatcag ctttatcagg agtttttgca agtaccgcag atttatgttg 780
aatcctagta agcgccagga atttgaagac tatcttcacc aggaaatgca aaatagcaag 840
gaaaatttca ccacagcaca caacacatcg ggacgttcag ctccaccctc cacaaatgtc 900
cggagtgcag accaagagaa tggagaaata acccttgtaa agcgtcgtat atttggccac 960
aggattatca ctgtcaactt tgcgatcaat gatctatatt tcttttctga aatggagaaa 1020
tttaatgatc tggtcagttc agcccacatg ctgcagggtca accgggcata taatgagaat 1080
gatgtgatcc taatgcggtc caaaatgaac attatccaaa aactcttcct gaattctgac 1140
atccctccaa agctgagggt gaatgtccct gagttccaga aggatgccat ccttgctgcc 1200
atcacagagg gctacctaga tcggagcgtc ttccatgggg ctatcatgtc tgtcttcccc 1260
gttgttatgt acttctggaa aaggtaactg tttctcctta ttcagtact gttaggtcag 1320
gaaaacacac ttagtttgga gagagttttc tgccttcctc tagcactctg tttcgtagtt 1380
tccagtttct agggggaact aagatggtgt tttcaaaaac ctattcacct cactccatcc 1440
ctcacacaga acaccaaaca ctgaatccac agatggaagg cagagtaaga ctgagagcca 1500
aacgcctggt ttcccacccc tctcttttct atgcttgctt ggagcaagaa tgtgaggttt 1560
tcttaggcct gggtttctca caagaaggta agagtgaacc acagcccctt ggggagaaat 1620
tctgtcaaga ctaacacaac tgcttgtgtc taagaagcta catgaagaaa gtaagccaga 1680
agtgttttgc tctgttatgc ccaaattccc agaattacca ctgaggggagc acagttgcta 1740
gatactccaa ttatcaagag gagctagaca ttgaaatgtg tatttcatct ctcccaaggt 1800
taaagtggca aatatggcaa ctaacaaaac taaaacatgg tgaagaaact gtgaaggcca 1860
aaaaccaaaa atgaaacaag caaaatatat gtagatattt tgtggccaaa tgcaatctgt 1920
ggcccacttg tttctaacct gtctgttgga gatttggcct gagccttccc agctggttat 1980
ttattcctgt ggtctgccag agttccagct catatcttcc acatggtgaa tggcagtgcc 2040
ttgggtggta gtgaccagag gacacctggc tgaaatgttc ccagacaaaag ctaatcagga 2100
cacttagatt atcatgtgac ttggactctt agaagttccc atcttccacc aaaaaaaaaa 2160

gttactttat taaaatagaa gtgtgaaatt gcttaccaat ctctcacctt tattttaaaa 2220
tccttgagat aataaactat ttaatacaga accaagagaa gtacaaaaat ctaagttcaa 2280
gacaagcaat ttaacctttt gaacatcaaa tgttgtctag aacttaactc tagttctcct 2340
agcaaggact aagtagatat tcacccagag acttttggag ggattgggaa cctctgggaa 2400
atatatgctt ctcttgaatg agccagtgtt tagctgtctc ccatgtgctt agaaaaatga 2460
gacatgcttt agggattctt tggattcctg ttcctcctgc agtttcttta cttactttcc 2520
tacatactta caaagaaatt tatgttatgc aaactgtgtt tacatatatt atcttaaagc 2580
aacctctcca caaccctaca cagtgggtgg ggaggagtat tattatccct gttttacaga 2640
tgaggagact gaggttcaga gtggttgagg gacttgccta gaatcacttg gtaagtggta 2700
aaaccagcat tagaaaccag gtctcttgggt ctctcatcac cataaataat gcatgtgcgg 2760
catactggga ggtccactgg ggaaggagac ccagttcagc aagtgaatg ggaaaagcct 2820
attgagatag aacagactgt ccctcaagga gaggggagga gggcagcagg caaaaccacc 2880
agatccaaag tgccatagaa aataaattca gtcttagcca agattgacct ccaagggatc 2940
caatccaagg actggttgaa ggtagggata acaaggggct tggggccagg aaggaagaga 3000
tgatggggaa tattgcacag gcttctagag aacataaagg tcataaagag tacataaatc 3060
tgagttcaca agagaaacca ggtctattcc aggggaagggc ccgctgggaa tagagtgagg 3120
tgggtcaaggc tgtcagtaag tggcaggggtg gaaactagga ttaggacctg agcaaaagcc 3180
cttcggacac tctggccata ccaggtgggg ttagataggg atgtcagagt ctgatgctgg 3240
ggtgcacccc aggggttaac ctcacccag gcctcaggat agcaggccct ttacaggctc 3300
cattcactga tggttccaga aagaagcccc aacaaactgc ccatgccagg cccgcgtgg 3360
agccaggtct ggacaaagag gaggcctcag aacaaaggcc actggcaggt agaaccceaa 3420
ggccaggatg ctttctctt ctctgttggg caccacatt ctctgaggac tggcccggcc 3480
ctgtttcccc tgtgctcggg gctccagccc cctccactgg gggttccctc ctatgaccag 3540
aagccattct tcccacaggt tttgtttctg gaaggcaacc cgctcttact tacagtatag 3600
ggggaagaag ttcaaggaca gaaaaagccc tcctaaatct acggacaagt atcctttctc 3660
gagtggagga gacaatgcca tcttaagggtt caccttgctc agaggtattg agtggttgca 3720
gcctcaacgg gaagcaataa gttcagttca aaattcttca tcaagcaaac ttactcagcc 3780
aagactcgtg gtatctgcca tgcagctgca tcccgccag gggtaggcat gagctggaaa 3840
tcctcttctt cagtccagag ctgctatgtc caagcatgca ataggagatg gtataaactt 3900

tccagagact agcctcatac cctgcctctc cttggcatgc agaacctaga aactgagctt 3960
gctgcctctg gtgggaagtt aaagaggtgt ttctctgtgg gggtcctttc tcacctccaa 4020
ctaggacagg cacttttaag aagttggagt ctctgacca cttttcagta gaacaatact 4080
gctgtggaag tgtcccagat gatctttgat ttttattttt catttttata gatttaagga 4140
gtacaagtgc agttttgtta catggatata ttgggaggta gtgaagtcta gggttttagt 4200
gtagtcatga tccaaatagt atacattgtg ccatttaggt aatttctcac cttaccac 4260
ctcccactct cgcactcttc caagtctcca gtgtctatta ttctgcggtc aatgtccagg 4320
tgtacatatt atttagctct cacgtgtaac tgagaacatg caatacttga ctttccattt 4380
ctgagttatt tcaacttaaga taatggctctc cggttccatc catgttgctg caaaagacat 4440
gattttatct ttttatgact gtttagtatt acattgtgta tatgtatcct acattctctt 4500
tattcagatg atcttttatt gccagcttcc taaatattcc aggctgctca gggcagggtg 4560
cataaggtgg gaaagaaaga agatctgttc ttctgcttgg caggatattg gcaataagaa 4620
cagaagggac ttgagtctgt taaaatctgc ttcagcctaa ctcaattctg cacaagcttc 4680
caagtgaaac tgatgctaag ttagggctct gggagaatcc ccaggggtca tgaaaacat 4740
agctgaggag tgccaaagag ttatttgaag gccaaggtgg tagacagcag cctctgaatg 4800
acaggttgg tgtccttgcc agccaagtca cttctcaggc ctgtttccag acttgtcctt 4860
ccaacaggga cttgaagctg cccaggaatt atttgcccgt ccagtgccc agaagacaaa 4920
ccagatactt tgaagctctt tacactggaa aagcaatgca tggttccaga gtttataagg 4980
ccttggggaa gaaggtgaga ctaagaatgt gagaagccct attctgaagc ctgaaggttt 5040
cagttttggc tattgccatt cctaaaggaa atgacagtga caaaccaaca gagaatgcaa 5100
cctcaattac tgcatacaa ttgtgataac tggtgtttt ctctcccttc agacaaaaat 5160
tatcctacat caaaaaagag aagtaatcaa gcgagacccc cagcagagat aaatcatctc 5220
ttagaggcct cctaactctg acagaaactt ttctgggtcaa aaatgaaagg tcctggtacc 5280
atcttcccca aaaacgatca agaagggcaa tgggttgaca gccagatat ggcaggacca 5340
gactgcaatg ggaatctcat acagcccatt cagactaaag ggtgatggaa agaagcagag 5400
gaaagcagaa acagcaagag tgactgagac ctgctgtcat ctatatagaa gcctttctga 5460
tacatgtcag agagtacat gaagtctccc ctctttatac acacgtatga aaatacatct 5520
atccctcatt ttgagagcct ccaactgac caagtgtcat ccggaggagg aggtggcccg 5580
tatgtgcagg acctcagggt gccagccctc acccatacac ctccagggt gcaggtcatt 5640

agccagaata aaggatgtcc acattc

5666

<210> 1420

<211> 2907

<212> DNA

<213> Homo sapiens

<400> 1420

ctcctggctc agagccttct gcagactttg ccactgtgct tgtctgtgga tctgtgtggc	60
ttctcagcct caccttgatg ccggctggac ggcagagggc tgcaccagtc cacatggact	120
ccaggtggcg caccagctcc gtgtctgggg atccccgctc ccagctcggg accccagaca	180
gtgccagacg cctccttggg gggcagctcc tggctgctct gcccgtctgc agcctccagg	240
ccaccctggg aggcccaggt tccgggaggt atgatcagtg tgtccacacc agactgcagg	300
cagagcagag ttgagggacc aagaagggtt gggacaggtg ggcaggaccc cagaaccact	360
cacagccccg ctgggtggaa gcaaattggc cctcctcacc cctgcccacc ttcttggcag	420
tctgccccca ggactggtca gacaagtctt cgtggctggc ctgggtgtgg tcaccctctg	480
gtggggggcca gcaacggggc aaggcgggga gcctggcacg ctaagtcctg gcacagggtc	540
agggcagtgga cccatctgtc ccacgcctgg agacctctgc atgccacgcg cctgccttgc	600
cctgctgtgg agctggtcac catgcgtcag ggaagggtg gcatggcgtg aggaccctgc	660
tgtcctgcgt ggccagctcg gctgccacct cctgccttgg tctctgccct gcccgaaca	720
ccagggcgcc ccaagctggc ctcaatgctc actccctgcc tggcatcctg gcttacagt	780
gtgaggcagt acctgcgcag agcagcctag cgcttggctg tcagccccag agaggcccc	840
accctgctca gcagaccagg agacggccca gcaccacgg ccccagcctc ctctgcctc	900
atcctcaagg cctggtccag gccacctct cccggaagcc caggccccga ggcaggacag	960
gaggtgtgca ggaattagat atttcctggg aaactagaaa aacatcccag ctgaggttgg	1020
gaggtgaatc accagtgggc agggcgtggt cctggctgtc tgggctctcc tgtccaacc	1080
ttccactccc tgaaacctgc agcacctgct gcaccacca cctcttctgc gacacgtcc	1140
ttctcttggg ggcctttcct ggggtcccc cagttccatg cgctgtatcc tctgctgtc	1200

cgacccatgg actgaccca gctcacagtc tcagtctcgg cccagggag cgcaggtcag 1260
ctcaaatcca gacctggctc agctagggct gtggacacgc tgcaagccct cgtgcagtct 1320
ctgggcagac ccgggacttg caggccaggg gaaagtgtgg acgtcatgag gcagtggcat 1380
ccctgtcctt gcagtgtcca cagtgactgt gtgtgtgtgt tctcgggtcc acataaaggg 1440
gcagatgccc tgtgtccagc tacaaccccc tcccaaagga gcctgcagca aagaagaatt 1500
gctgggagga agatcacctt gctttattgc ctgggcctta aggtaatcag ggggtgtcct 1560
ctccagccag gacctgggat tccgtttcag gagctcgggc tgaacggcca ctttcttgt 1620
gggtctgagc cccagtgcct ggtgtgaagg ggcagacgcc catgacaaca gccacccgc 1680
atgtcccggc atgtcccggc actgtgtgag ccacatttgc tgaagtctgg gtcctggccc 1740
tggcaggggtg ggctgggcta ggagatgaca cagcagcagc agctgtggca gcggcagaag 1800
ggggggcagt ggcagcagtg gcagcagggg cagcagcagc agtgggtgggc gatgtcatcc 1860
ccgcgcccc a cgggcggagg gccagcgtag gtcagtccgg cctggcgctg actgctgctg 1920
taggggttgc caggctgctg ccaggcctgc tggttctgga tgggggcagc cccctggtta 1980
cccttggcgc ccttgggccc tgggacctgc gtcggctgca agaggtgggt tggctctggg 2040
gcacagggcc cactggcag gggctgcatc tccgaggatg aggaacaggt ggaagccacc 2100
tctaactgct gccccaggtc aggccgcagg tgagcccggg ggatgctgat gtgggcatat 2160
gggttcttga cgaccatctc ttgggggtcc atggtccagc ctgcaggggt gggcagagaa 2220
gacagacatg aactcagtgg agtgggatgg ctgcccacga gcctgcggcc caggaaagcc 2280
cccaccagga gcagcgtgcc tcgtccaagc tcagcatccc caaggcatca gtgccgggggt 2340
gccatcacct ccaaatgtgt gtgcaaggct agtgtcatgg gcgtgagcca agtgtgagca 2400
agcagcaagg gccggtgtct cccagctgcc acccctgcca gggatcctcc ccctcccctg 2460
gtggcattgg tcctgggatg gagctgggaa tggggtcggg gaggtgaga gatgggagag 2520
aagggggctg accctgcagt gccctgagt tcagggcagt cccggcggcc aagggttac 2580
ctgtggtggc aacacggcag tctgtcctct cggctctctg agctctaggt cccagtgcct 2640
gagttgagcg actggcagcc gccttttccc tccttgggag gggcggggcc atggggcggg 2700
gctcagagat ggggttccca agatcccaag agggccagc aactggagca cgacagctgg 2760
cccagccctc gtcctcaggc tcattctaaa ctctggact gaagtgatcc gcctgcctcc 2820
acctccaaa gtgctggatt ccaggcgtga gccagcgtgc ccagtggctt ttctgctttt 2880
ttcactgata aaaaatgttt gatttgc 2907

<210> 1421

<211> 3403

<212> DNA

<213> Homo sapiens

<400> 1421

gcctactggt	tttactgca	aaaaaaaaa	actagtgggt	tactagtggg	aggcaaagat	60
gagtttgagc	tgccacgtgg	tgacagctga	cacttggact	gctgtgcagt	aacagccgtg	120
gagttgctgg	gcatctgctg	ctctctaggg	cctgggaggg	tggtgctggg	ctgacaggac	180
acagagccca	cagggccggc	gcacagaagc	tctacctgcc	accgcaccct	cttctctggtt	240
tggggtgagg	ctgatggcag	cgttcatgcc	cctctgctca	ggcgacgtgg	atgtgattgg	300
tgtgggggca	gatgcctggc	tgtgtgaggg	ccccgggcgt	gcctctcccc	tctggttctc	360
ccttccccct	ggaatccttg	ggtgggcggg	aggctccatc	catcagctcc	cccagtcctc	420
agcacgcccc	acaacagagc	acagtcattg	gagctcagga	ggagtgggtg	gcaccagcag	480
gcccagctgc	gatgggtgcg	tgtgagggcag	gcctggggcc	tctcaggtgg	ctccgaaggg	540
agggtccggc	ctccgccctc	agtgattact	tagatcctgc	tccctcaaag	tgaactagag	600
gccagtcact	ggatgaagaa	acagggtcag	aaggtagcac	aggcgggccc	attcattcgc	660
acctgtcagc	agaagcgtac	tccatgggca	aaaacacaga	catcgacca	gccaggaggg	720
tccccctcca	ccacggatga	catcgtgaag	gttgaagtct	gggatgtagt	agacaaaggg	780
gttttgtttg	ttgtcccagt	ccgtgactcc	aagactggga	ccccagagt	tcccaggatg	840
gtctggagcc	tttatcctca	ggaaaatgca	aaaagcgagg	cgacggctta	aagatggaga	900
acgaccccca	ggaggcggag	tctgaaatgg	ccctggatgc	tgagttcctg	gacgtgtaca	960
agaactgcaa	cgggggtggtc	atgatgttcg	acattaccaa	gcagtggacc	ttcaattaca	1020
ttctccggga	gcttccaaaa	gtgcccaccc	acgtgccagt	gtgcgtgctg	gggaactacc	1080
gggacatggg	cgagcaccga	gtcatcctgc	cggacgacgt	gcgtgacttc	atcgacaacc	1140
tggacagacc	tccaggttcc	tctacttcc	gctatgctga	gtcttccatg	aagaacagct	1200
tcggcctaaa	gtaccttcat	aagttcttca	atatcccatt	tttgcagctt	cagagggaga	1260

cgctgttgcg gcagctggag acgaaccagc tggacatgga cgccacgctg gaggagctgt 1320
cgggtgcagca ggagacggag gaccagaact acggcatctt cctggagatg atggaggctc 1380
gcagccgtgg ccatgctcc cactggcgg ccaacgggca gagcccatcc ccgggctccc 1440
agtcaccagt ggtgcctgca ggcgctgtgt ccacggggag ctccagcccc ggcacacccc 1500
agcccgcccc acagctgccc ctcaatgctg cccaccatc ctctgtgccc cctgtaccac 1560
cctcagaggc cctgccccca cctgctgccc cctcagcccc cgccccacgg cgcagcatca 1620
tctctaggct gtttgggacg tcacctgcca ccgaggcagc ccctccacct ccagagccag 1680
tcccggccgc acagggtcca gcaacggtcc agagtgtgga ggactttgtt cctgacgacc 1740
gcctggaccg cagcttcctg gaagacacaa ccccgccag ggacgagaag aaggtggggg 1800
ccaaggctgc ccagcaggac agtgacagtg atggggaggc cctgggcggc aaccgatgg 1860
tggcagggtt ccaggacgat gtggacctcg aagaccagcc acgtgggagt ccccgctgc 1920
ctgcaggccc cgtccccagt caagacatca ctctttcgag tgaggaggaa gcagaagtgg 1980
cagctccac aaaaagccct gcccagctc cccagcagtg ctccagacca gagaccaagt 2040
ggctctccat accagcttcg aagccacgga gggggacagc tcccacgagg accgcagcac 2100
ccccctggcc aggcggtgtc tctgttcgca caggctccgga gaagcgcagc agcaccaggc 2160
cccctgctga gatggagccg gggaagggtg agcaggcctc ctctctggag agtgaccccg 2220
agggacccat tgctgcacaa atgctgtcct tctcatgga tgaccccgac tttgagagcg 2280
agggatcaga cacacagcgc agggcggatg actttcccg gcgagatgac ccctccgatg 2340
tgactgacga ggatgagggc cctgccgagc cgccccacc cccaagctc cctctccccg 2400
ccttcagact gaagaatgac tcggacctct tcgggctggg gctggaggag gccggaccca 2460
aggagagcag tgaggaaggt aaggagggca aaacccctc taaggagaag aagaagaaga 2520
agaaaaaagg caaagaggaa gaagaaaaag ctgccaagaa gaagagcaaa cacaagaaga 2580
gcaaggacaa ggaggagggc aaggaggagc ggcgacggcg gcagcagcgg ccccgcgca 2640
gcagggagag gacggctgcc gatgagctgg aggccttcct ggggggcggg gccccgggcg 2700
gccgccaccc tgggggtggc gactacgagg agctctaggc cggcgtgggc agtggccgcc 2760
ctggggcggg gggcgtgcct gtcactgcct ggggaggcat ttgcctctgt accatgcct 2820
ttgccgctgc cccgtggctg ccgtgtgcgc ttctgagctg gaagaggccg ggcattggtg 2880
gtccccaggc tgggccctgc aggtgctggg ccttcaggcc cagtgtgagc ctgctctgca 2940
agaaggagg ggacagctgg cttcagccag gctcgggtgga caccctggcc ctctcggggc 3000

agagccgcca gtgttttctca gggatgtgac tgaggcccag gagggacctg tgagggtctg 3060
 ttacagagg ctgggcaggg gccgcttggc tgtggggtgt gcgctgcccc ggcacctgct 3120
 tgccctccgc gctcatctgg ggccgcagca tgcctatggt tccgcttccg gccgggagcc 3180
 ctgaacacgg gtgtgcagac tcaccctaaa gggcgggccca ggccccacgc tagaaggctg 3240
 gcgagaccga aggcagcatg tgaggcctct cctgggagtgt ggggttgtgt ttcccacagt 3300
 ggccctcagct gcgccccgc tcaggtgagc ccgaaggcag gagccgggag gcactcctcc 3360
 caaacactcc actcagacca taaagcactc ctgtttcact ctg 3403

<210> 1422

<211> 3339

<212> DNA

<213> Homo sapiens

<400> 1422

attgtgcctc ggacaacgag tgtacgcagt taccacacag ttaccaagca gttacctcag 60
 agccgcggcg cagacgtagg cctcaggtct cgggcctcag gtctcgggcc tcagagccag 120
 accccgccat ctcacgatgt cagagaggac ccaggaacag gattttgtta ttataactgt 180
 cgacgacagt gatgataaca atgattgcag tattgagatg gtggaagttt ctgaaacagc 240
 agataattcc actaatgaca tagcagatga ttccacttat gtcacagcag ataatccac 300
 tgatgacaca gccacacaac caaattttcc aggcggcaat gatggccatc accgtccact 360
 ccaaattgtca tatgggtctg gctctgtcac ccaggctgga gtgcagtggc atgatcacag 420
 ctactgcag cctcaacctc ttggactcaa gcaattcttc cacctcagcc ttcccagtag 480
 ctgggatgac aggcgcacac caccatgccc agtagcccat ggtgaccaa tagtttcaca 540
 gataaaccac ccagtacatt taagaagata cagttacaac tcagaggaag tggatttgcc 600
 aaaaagagga agattctata ctccagaggt acagtctagc atatcaccac cagcggaaag 660
 gcaggaaacc catgcctggg ccagccctgc tgtaacatct cttgagtcag cagcatgtca 720
 tgaactgcag gaagcagacc tcagtgaag tttatcatat cccagaattg tctcctcaag 780
 ttcattacag cagtatgtcg cacaaggtgg ctcatcttct tgtttcggtg tgtcatggaa 840

ctttatcagt ggaggtgctg aaagtaccaa tgctgtcatc tcatttgcca atgctactac 900
agcagtacct atggcagttc tgtcacgaag agaatccagt ctggcaaata accctgggtgt 960
ggtgaattac tctgctctac cagaaaatga aaatgtgggc ccaggtagag ccttgtcatc 1020
tttctgcttc catcccaatt tggaaatgcc agagagacca gcaaacagca gtaaaaacag 1080
cactgagaca gcgaattatc caactttaat gggaaattac aatggccaaa atactgcctc 1140
tttatctgtc ttcacccctc cctatcttgc tgagaaaatt atacttactg aaatgccagg 1200
aacaacagaa accaacgtgg aaaataactc tcagacagtg tattaccag ctttatcggg 1260
aaatacgagt gcccataatc cagcctcttc atatcttccc atcacttcta attttgaatc 1320
tggcccacaa atgagttatg ggacaatgag ttactcaact gaaatgaaaa ataactgtga 1380
ccaagatgat gcttcagcat ctgcctgcct cactcccgat tttgcactgt tacctctgaa 1440
tattttggta aaagtagaca ccaacacgga aaacagcgtc aacacaatga atcgctcaac 1500
tttattggac agtgacagtg gccaggattc ttcctcatca tctgtctgta tccctcccaa 1560
gtatggctat cttggtgatc caaaaagaaa tgtcagagta cttaaaatcc atttgctggc 1620
cgtacaaaat atggccaaac ctaagcaagc agcctgctac ttggttcgta ttttgttctc 1680
caaggaaatc ctgattagca gctcagtgga tatccatttg aaagacagcc aatccctcga 1740
cccgaacaaa atggctgcat tgagagaata tctggcaaca acttttccca cctgtgattt 1800
gcatgaacat ggaaaagact ggcaggactg tatttctggt atcaattcta tgatctactg 1860
tttatgttct gaaggcaaga gtactccaaa aactgttcgc aaaaataaaa aacgtaccaa 1920
ccgtgttgca tcggcatctg cagatagaaa tgaccaaaagg ggcagagatg gtggtgaagg 1980
ctgttcttgg atgtttcagc caatgaataa ctccaaaatg agagaaaaga ggaacttgca 2040
gccaaacagt aatgctatcc ctgaaggaat gcgagaacct tccactgata atccagagga 2100
acctggtgaa gcatggagct attttggag accatggaga aatatacgga tgccatgctc 2160
agtactgact ttggcaaaaa ctaagtcttg cgcaagcctg tcggctagat acctatttca 2220
gaaactcttc acaaaagatg tcctggtcca aagtaacgtc tatggcaatc tgaagcatgg 2280
cctgtgtgcc cttgacccca ataagattag tgctctccga gagttcctcc aagaaaacta 2340
cccaatttgt gatctctcgg aaaatggaag agactggaag tcgtgtgtga cctccatcaa 2400
cagcggatc cgtagcctta gacatgacgt cagaagggt gaagccagg ctcagtcgct 2460
tccagcagtg acccctccag agctggagca ggagtcaaag ccaggagatc ccgacgccac 2520
tgacccaagc acctgaacgg cagctgcca actttttttt ttttttaact gttaagacta 2580

ttttgtaagt ttctcaagtt ctaattccaa aatcagcctg ctgtactggc agagtagttt 2640
 gcattgacac ctgtagtaat cgccaaacct ctttttctgc tcataaagga ggtagaatca 2700
 cattaggaag atacgtaatg tttcatctgt ggatttgatg acaacctctg attgagggaa 2760
 tggtagtaaa ctccatcatgg gcttgtgacc catggctttg acttagataa ttgacattaa 2820
 tatactttgt ttttttgata aggtagagaa agaaattcaa tagaaagtaa ggagccactc 2880
 agtcaaataa tataattcgt ataaaacttg acaagtcttt ttatttttgt gacttgtgag 2940
 atagtttaag atatttttat gtgaccaatt tgtagaatga atacatattt tcaaagttat 3000
 cttttcaaaa ttcaactttt agagtatttt agcaaaatat atgtatagtt tataatatag 3060
 aagtatagct ttataaagat attaaggatt tattttttta aataattctc tgaatagttt 3120
 gctgtagtag ttgccttcag ctttaataaaa ccatagtact tctacataca tctttataag 3180
 ttaggctatg cctacaaagg tcttaaaaag tagataattt accgggtgta gtggctcaca 3240
 cctgtaatcc cagcactttg ggaggccgag acgggtggat cacctgaggt caggggttcg 3300
 agaccagcct ggccaacatg acgaaacccc atctctact 3339

<210> 1423

<211> 2890

<212> DNA

<213> Homo sapiens

<400> 1423

gcgaagacca gtagagcccc ccgctcggcc gccagctccg cgacgaagcc cgagttgttg 60
 gcgaaggccc acacgtcgcc ctcgttccca gtgtagaaga agatgggccc ctcgccccgg 120
 acccagaacc tgtctgtggg gagggcggat gaggcgaggg tgccgggggg cggcgggacg 180
 gcggggggcg ccggggccgg gccggggtct caccgcacac caggaagcgc tgagggaagg 240
 tcttgttgcc gaagcgctcg aagttgaagt ggtccagacg ctgctggaag aagcgctcct 300
 ggaagccggg gtccggggcc ctgcgggctg tggggggacg cgaacctcag aggcggggcc 360
 gggaccgggg aatgggcccg ggggcgccgc cactcacccc ccgcctggag gccgcgcagc 420
 ccgagcgcca gcagcaggac cggggcccag ggagcggagc ccatgtcgcc ttccgcgggc 480

gccccgtcacg tgggcgggggt cacggggccg ccaggggcgcg ctcctccctc caggccccac 540
gtgttttcggg cgccccgcggt cccacaggag accgtcgctg cttcagcgcc gcgccggggc 600
tgtgcccccc aacaccccgc gccccgcggc cgctgcccag gggtccttcc cgggcacggc 660
gcgggggaagc agaggggcccc cgggccatct ccgcggcctc ccgccccact ggctcgtcct 720
cctaccgcgg ccccatccgg agctgcgcta gggcgagtcc ctgctgcgcc cgccaagcct 780
ccccagcact tgctcctggc aggtgcccc a tccaaggca gggccgggag agtggggggc 840
gttctgctgc cctaagggcg ggaggagag ggtcccaaac agagtgtgg cccccgaag 900
aaagcaaccc agggtttgtc caagcgataa cgggctgggc ttggcggggc ggggcctcgc 960
agcgggcagg agtgtgggggt gccctggag cgtctgggca gggccgggat gtggccgggt 1020
agctcccaag agctgggaat cgccacctgc cttccgact ggcacccagt gtgcccacac 1080
agccctgcag ggacaagggg ggaccagagg cctctgctgg gagctggggc ctcctccctg 1140
gggagcacc agaggatgga agaagtcacc tttccccagc gtccagttca gggagtgggt 1200
gagggggccg tagtggtggg tgccagacta gctacgtgga gtcctgctgg ggatgtacat 1260
gggccgctag ccaggcccag aacaggtgca ggggcagcag gggctcagct acagagagtt 1320
accctgtcct tctccaaga ctaccctcgg ccagcatgac cctgccctgc ccatcctgtg 1380
tggggctgag cggagaagac cggccacttc cacagcccct cacgccatgg ccctcccgtg 1440
cctcacacag aggcaccccc catggtgggt gactggtggc tggggccctc agcatggtgg 1500
cagtgaccat cacgtcacac tgcaacacga ggcatccag ggccacacac cgtccccacc 1560
acggccctca catctgggcc ctgtcccatc cctacgcagt tcctggggct gcctgccggg 1620
gccccgcag gacgggggtg aggacaaaca gcagacctcc ttggatgtgg aggtaccca 1680
cggcgtcccc caccacac ctctgccct ttggctccct cgggtgcctt aggtggccag 1740
aactccacca gcaaccctca cccaggaccg cagctctgga gatgccagct aggccgagag 1800
ctggccagct cccaagcac accagagcct ggagacgctc caggcttggc tgggcccaca 1860
gagggggccag agcctcaggg agggctccag gagcagggtt tccaaggaag ccactttccc 1920
gcttgtccac ggcccaggca ttgatcccc ttctgggcag cagccagggc ctcccaagcc 1980
gggaagggtg ggcatggggc taccagcat ggctctgcca ggggtgaggg tggccacagt 2040
cccctgcca catcctgtg cccacagaaa catatgctgt atggaatcaa ggtttaaggc 2100
atctaggcct gtgctggtaa cctgtaacct tagccccatc cctgtgcca cagaaacatg 2160
tgctgtattg actcaagggt taggggattt agggctgtgc aggatgtgct ttgttaacaa 2220

tgtgtttgca ggcagtatgc ttggtaaaag tcatcgccat cctccattct ccattaacca 2280
 gggacacagt gcaactgcgga aagccgcagg gacctctgcc caagaaagcc tgggtgttgt 2340
 ccaggtttcc cccagtgag acggcctgag atatggcctc gtgggaaggg aaagacctga 2400
 tcgtcccca gcccgcacc cataaaggt ctgtgctgag gaggattagt gaaagaggga 2460
 ggctctttg cagttgagat aagaggaagg cttctgtctc cgacatgcc ctgggaacgg 2520
 aatgtctccg tgtaaaacc gatcgtacat tagttctatt ctgagacagg agaaaaccgc 2580
 cctgtggctg gaggcgagat atgctggcgg caatgctgct ctgttactct gctacactga 2640
 gatgtttggg tggagagaag catgaatctg gcctacgtgc acatccgggc acagcacctt 2700
 ccttcaagc tatttgtag acagatgcct ttgtcacat tttcttgctg acctctgctc 2760
 tgctgccgca ttcctcatgc aaagatagtg aaaatggtaa tgaataaata ctgagggaac 2820
 tcagagaccg gggccggtgc gggtcctccg tatgctgagc gccgtctcct gggccactg 2880
 ccttctctat 2890

<210> 1424

<211> 3109

<212> DNA

<213> Homo sapiens

<400> 1424

agcgctctgt tctgcccttt cactgaaaat agctcttcct gacacaggct tgggtagtga 60
 aagcagcttg gtcacatctg tcccatgggtg taactaatct ttaggatctg cagagacctg 120
 ccttcctctg caattgtaac tgtacctcca atcgtgagtt tcgtctggca gcttaactgg 180
 gctaccagcg aggtcctcat aatggctttt gtccttgcc tcgcggagac ccgactctgg 240
 aatccttagc cagtgcgatg tggctcact atgttgtcta gactggcctc aaactgctgg 300
 gtcctgcga tccacctacc ttggccttcc aaagtgcctg gattacaggc gtgagccacc 360
 atgccagcc gcttcattct tctttactca tgccttagag gactcgggtca agacaatggt 420
 gccctcagga aggttacgag agagcaagct gtgctgcttt gccatcttg ggatgagcat 480
 caccagaga gagggaccag aatccctgag gccatcttgg ttcattctgca ccgtctctcc 540

tacacctctt caccctccc ctctccactt cactccaggc tgcattgggg cggggaggtg 600
atcatccaag gccctggctc tccatcgaga cccagccag gtagagcccc tattgcctga 660
gcaagcttgc gcaggatggg gctggagctg cactatttgg atcttcttgg agtagaaaat 720
tcacaaattc caacctctgc tcccaaagca aacctccca gccaggtgg ctgcacctt 780
ctcctcccct ccccccagtt ccctgggtcg ccaagccgga ggctttgaaa accagcttgt 840
gtttggtttg tgaaagcacc aatgtttgca atgtttgccc agcagagaag gagcatattt 900
tctcccttcc aaatgcaaac tcaaaagatg ctccaccagt tttcttcag actttccaca 960
ggaaacataa ataagaaaga aaaatgactt taggtgctga gacctgaaat ggaatttcaa 1020
ccctgaagga actgcctgta acaagcactc tctgtccttc agtgaaggct tcgagagcct 1080
agggtgcatgt ttctttctc tgagtagcct tcacagatga ggcaagggga ggagctgaac 1140
cagttcttag acctgactcc cagctagatc ttcagcccca cacaatgaat ggccggtgac 1200
tggcacagca gctgagattc cctggctaca gtgttctttt ttatctttct tgattgtgtt 1260
agggtagaac aaatgagggt gctgcaaccc gagaggccca gccacactgc aagccagcac 1320
aatcagagtg tgaagtgtgg acacgcccc ctggaacaca aggccacagt ttgccacctg 1380
ctctgccctt gtctccatct cggaagaagg acgtccctga tctgtggcct ctgtcctcac 1440
ggatcttata attatcagac aaacacaacc acagagaggc tggaaggcag tgcttcagca 1500
tcacacatat atgcatcggg gaccagagtt ctgattaatc ttaatgcaca gataattgga 1560
gcatttcttg ctacagctt atagccacca aatgactgct tccaggttag gagtttgcag 1620
aatatgtaca cacacggagc cctacaaaag gctccagacc caagaaatac agggttgaag 1680
tcagtgtgga cagttctaata gcagctaata cattctaact gatttgttgt gagctaaggg 1740
ttcagtgttt acacttcaag gtcactgttt ctgtctcctg acatctgaga acctttcttc 1800
ttcttctttt ttttttgaga cagagtcttg ccgtgtcatc caggctggag tgcagtggca 1860
tgatctcggc tcaactgtaac ctctgcttcc caggttcaag cgattctctt gcctcagcct 1920
cctgagtagc tgggattata ggcaccccc gccagacctg gcaaattttg tatttttagt 1980
ttcgccgtgt tggccaggct ggtctcgaac tcctggtctc aagtgatcca cccaccttag 2040
cctcccaaag tgctgggatt acaggcgtga gccaccgcgc ctcatccaag aacttttctt 2100
cttaaggtgt tttcctttcc catagcattc tatctttgga taggccaac gaggccattg 2160
agcatctacc ctttttacia aacatattat caatcttata gcccatatgt ttagtgataa 2220
gtcaactaaa caaagcaagg gacccactg gaagggtgctt gtgggaagtg tacccttcca 2280

tctaggactt cactttgatg taccaaattc tgagaaagac cccagaagcc atttccttct 2340
 tgctgagggtt tatttatctt gtttatctga agccagggcc aataacccaa atggctttca 2400
 aatggctaca aaagtttctc agcattcgat taatcagtcc catcacagac aagtcaacta 2460
 acctgcagac ccacgtgctg tactcatagt cgttgctggg tctggcaggg gtgatctggg 2520
 aggaggtatt tcccggaggt gtttccgaag ggagaggcac tagctgaagt tggctctgag 2580
 attcgaagcg gaggaggaaa gggaaggtgg agtgctgatg ctgacaaggt gaggaagagg 2640
 aggagtagag gttaccagcg ctgagagcat gggttttgga ggcacacaga tctgtgcccc 2700
 aagggtatc aatgctcttc cacttcattg ctgagcaacc tgatgtgttc atacgttccc 2760
 tgatgtgtaa aagtggcaca atacttgcgt ctaccttata aagtgcctgc aagcactaag 2820
 acaaaatgta gacagagctt aatgcagtgc cggactcagt caacaaatag caaatggaag 2880
 tcgttctcat taaacagcga aaaggaagta aggaagacag aggaagacaa aggggagatg 2940
 gggaggggat gccgtgggag gctgtgggtg ggggtgcagag gctgacactg cagacagcag 3000
 cccctcacc agctccatct ctgggcgcct gggacaacac agctctcggg ccagacaggc 3060
 tgctcagatg tttattaaga aaccacccat aaaagttatt ggaaacttt 3109

<210> 1425

<211> 6730

<212> DNA

<213> Homo sapiens

<400> 1425

aagagaggat aagttgtggg tgcacattta ctaattcatt cagaatctgt atctattctt 60
 tgtccagtga tgagtgaag aaagtgtcag gcagcccat atttactttt catagccacc 120
 ttaagacctc ctctgccag gccatggcta gaatttcact agcctctggc acaaagcagt 180
 ggtgccagg catatggcag ggataatgct ctcccagcca aagtagcaat gtcattcttt 240
 ctattctttt ttcttctccc tctaagtcac tcagccctaa accaggtgtg ttccaatttc 300
 ctctactata tgtgcctcaa ctttctctca gctccagaga agacaggacc accttccaaa 360
 gaaggtgaaga tgctacaatt tgaccactca tgtggcctgt gctgggtcttt agagtctggg 420

tgcccttgctg attgactaga tagtgagtta gtacagccat gagatttctt tgcctgaggc 480
tgcccagagg aatcggagtg atgcaattat aggttgattc ctagggatat gaagtaatag 540
aactggaaaa tgatggaacc caaggctcct ggcaccttag agttgagaag gatcctaattg 600
ttcatcaagt ccagttcctt cttcctgaca gtctcctctg caacatcccc ataccatagg 660
cctcaggagt ccagtgttca ctatagcatt aatagtgtgt tctatttctt cattcattca 720
agtagtgttt cttttttctt tttcttttct tttttgtttt tcttttattt taagacagtc 780
tcgctctgtt gcccaggctg ggggtgcggtg gcatgatctc ggctcactgc aacctctgcc 840
ttccagggtt aagtgagtct cctgcctcag cctcccaagt agctgggatt gcaggctcct 900
gccaccacgc ctggctgatt tttgcatttt tagtagagac gggccttcac catgttggcc 960
atgctggttt caaactcctg acctcaggta atctgcctcg gcctcccaa gtgctgagat 1020
tacagatgtg agctaccgtg ccagccaag aggtgtttct tgagcacctg ttgtgtgtca 1080
gactccattc caggtgctgg tgaaagagcc agggatacaa agccctgctg tcataaattg 1140
aaacaggcag gcaataagca aatgcatact atgtcagaga tccataggca ctatgaagaa 1200
aataaaactg ggcaaaagga tagagagtgt tagaaggagg agagagacat gttagatagg 1260
gtggtcaggg aaggcctcca tgtggaagtg gtatgtgagc agaggtctga gtcaagtaaa 1320
ggaaagccat gcagaatcta ggcaggagga acagcagctg cagggctgag agctggaagt 1380
ttttcctctt gttgaacatt cattgagctt ctgtacctg ccaggggagg cctaggtact 1440
gctgtggata gagcgattat aacagtatgt tatttgccct gaggggttcc tctatcttag 1500
acctgtctcc tgatataata gaaaacagtt taataattgt ttcatcattc attcaacaaa 1560
tataacctctg tgggtaagac ctagttctgg ctcttttccc ccttattata tttgtgaaga 1620
ttctgtgtcc tctcccccac tctctacacc tgctgtctct ttttatcttt ccagacatc 1680
atgctgagag ggagcaaagc ccaggtgagc atttttattg cttccaacat agcttggcta 1740
ctggttctct cactatgctg gctactcctt tctgcaatct ccctgttaag gcatgatctg 1800
gcctgcagag agaatagcat gatttctgcc atgtagccta agactattgg cagtcacatc 1860
accatcacct ctcatgctca taagtgcctg ctccactgct tctggcagtt cccttgcttg 1920
tcaaaccaag gggagcccca cacatctcct gccttaaaca ctggggcttc ttaaattctca 1980
ttgtgccagg aaatgcagca catctctcat aacattcaga ctgctttctt ttatatatca 2040
ggagaaaggc aggtggatgt gtgtggctga aggatatttg tttcattatt attatattga 2100
tgagagcatg ctttggtgga caagcactga acttgggaatt aggagagctg acctggctct 2160

gctaccaa at tgctgtggga catgcgctat cctcaccctc tgcttgccca ggacttggcc 2220
ctggcaggat ggattctttc ggttgacctt caactgaggt cctgtctttc aatctctcat 2280
ccactcactg ctggaaggat tatctgaaaa caaagtctta acatcttaac tcccctggct 2340
ttcagctgtg gtctccacac atcagctctgt ggagtagtgt caaatagtga tgaagttttc 2400
tctgggccat ggtgaaatgt ggaacataag gataaagttg actttattta ggtttttttg 2460
tttgttttgt tttttgaggc agagtctcag tctgttgccc aggctggagt tgagtgatgt 2520
cagctcactg caacctccac ctcccagatt caagtgattc ttgtgtctca gcctcacgag 2580
tagctgggac tgcaagcata tgtcaccatg cccaggatgat ttttttgtat ttttagtaga 2640
gatgggggtt tgccatgttg gccaggctgg tcttgaaactc ctggcctcaa acaatctacc 2700
tgccttggac tccaaagtgc taggattaca ggtgtgagcc actgcacctg gcctttattc 2760
aaattttaaa ctctgaagtc agtctttttc tttccttttt ttttgttttg ggacagcgctc 2820
ttgtttctgt gcccaggctg gagtgcggtg gcgtgatctc ggctcattgc aacctccacc 2880
tcccgggttc aagcaattct cctgcgtcag cttcctgagt ggctgggact gcaggcactt 2940
gccaccacgc ttgtctaatt tttgtatttt tagtagagac agggttttgc catgttggcc 3000
aggctgggtc cgaactcctg acctcagggtg atccacctgc cttggtttcc caaagtgtctg 3060
gcattaccgg cttgagccac cagccctatc cttctttcct gttcttttgg tattaaaata 3120
ttctttcttt tatgaaaccg ttttcgtaag aaatctagaa gtctctgccc tcaggatgaa 3180
gtcccaattc cttaagtggc atttgcttaa aggtctttca cagtccaact gcagattaca 3240
tcacatagtt ccccagcttc tgacacccca catctattca ctgactatcc agtgacactg 3300
actggaaaca tggcatgtct tctcatgcct tcaggcctct gaacaccttg cttccttttc 3360
tcttttctcc tgtcgtgcc tcttttctcc tcacctcca cagtttgttt ctttctttct 3420
ttcttttttt gagacggagt ctgcgtctgt cgcccatgct ggagtgcagt gacatgatct 3480
cggctcactg caggctccgc cttctgggtt cacgccattc tcctgcctca gcctcccaag 3540
tagctgggac tacagggggc cgccacctcg cctggctatt ttttgtattt ttagtagaga 3600
cgggggtttc ccgtgttagc caggatggtc ttgatctcgt gacctcgtga tccgccagcc 3660
tcggcctccc aaagcttgct tttttttttc tgagatggag tttcgcgctt gtcattcagg 3720
ctggagtgca atggtgccat ctcagctcac tgcaacctct gcctcccagg ttcaagcgat 3780
tctcccacct cagcctccca agtagctggg attacaggcg cccgccatca tagccggcta 3840
atttttgtat ttttgtaggg acgggggttc actatgttgg ccaagctggg cttgaactcc 3900

tgacctcagg tgatataccc tcctcagcct cccaaagtgc tgggattaca gcctggccca 3960
cagttttcttc ctctttgacc tttccttccc catgccaggc agcctgagtc actccctcct 4020
caatatagcg ctgatcacat gtcttgaat tgcctgtctc attatgtgtc tcttcccac 4080
agctgccagt tcctggagggt agggcctggg tctcacagcc tgtcctgagt agtagccact 4140
caatgaacat atgtcaaatg aatgaaagaa tgaatgtttt tgggaggcca aggtgggtga 4200
atcacctgag gtcgggagtt tgagaccagc ctggccagca tggcggaacc ctgcctctac 4260
taaaaatgca aaaaattggc tgggcgtggg ggtgggtgcc tgtggtcaca gctacttggg 4320
aggctgaggc aggagaattg cttgaaccca gaacggggag gttgcagtga gccgagatca 4380
tgccattgca ctccagcatg ggcaacagag cgagactctg tcaaaagaaa aacaaaacaa 4440
aaaaagaatg aacgttaatt tttgagacat atccatgtcc ttctgcttgt gaagtttagt 4500
ctttcccggt aggttgaacc ttgctcaaag gaagaggagc ctctgatttc cttatttccc 4560
actatactgc atttaccctt gctgccctgt gcagtactct gcatgtagta ggtactaatg 4620
tgctgattac ctgttcttct atgttctctg tgtggctttc ctctacttat tccctcccta 4680
gaactctctg cagtgtctga gtcctgcag catgggctgc cccagataag cagcaggagc 4740
cctgaaagcc ttgccttcct gtctgatcgc cagtacatgg agggagctgc tcgccagaga 4800
cagtactgca tcctgctcct cttctacttg gcctacatcc atgaagacag gtttgtctca 4860
gaggcagagt tattttgaggc tgtgcaaagc ttctcctgt ctctgcagga ccagggcgag 4920
cgccccccac tgggtgtctt caaagcctcc atctatctgc ttgcaatctg ccaggacaaa 4980
gacaatacac tacgtgagac tatggtcagt gcaatcagaa aattcctaga aggcattcca 5040
gacctgcagc tagtctatac tcaccatccg ctctgtctca gggttctttct gttgtatcca 5100
gagctcatga gtaggtatgg gcaccgtgtc ctggaacttt gggttcttctg ggaagagagc 5160
agctatgagg aactggatga tgtcacctct gctgggcagc ccgcccttcc tgccagctta 5220
gtagtcctgt tccagttgct cagaagcatc cccagcatcc tgctcatctt gctggacctc 5280
atctattcca gcccagtgga cacagctcac aaggtactga ttagcctgag gaccttcctg 5340
aggaggaatg aggatatcca agtgggcggt cttatccgag gccacttcct gctgacctg 5400
cagcgtctgc tagtggagca tggggcatcc ccatcaggag tcctccttgt tcttcacagc 5460
ctcggggaac ctaccattgc tgctgagcct cctctccctg atgcagctca ggaatgtgtc 5520
agagcaagaa ctggacagcg tggccatgaa gctccttcac caagtaagca agctgtgtgg 5580
gaagtgcagc cccactgacg tggacatcct gcagccctcc ttcaacttcc tgtattggag 5640

ccttcatcag accacaccca gcagtcagaa aagagctgct gcagtgtccc tgagcagcac 5700
 aggccctgatg gagcttctgg agaagatgct ggccctcacc ttggcaaagg cagattctcc 5760
 caggactgca ctctctgct ctgcctggct gctcactgcc tccttctctg cccagcagca 5820
 caagggcagt ttgcaggttc accagacact ctctgtggaa atggaccaag tattgaaggc 5880
 tctcagcttt ccaaagaaaa aggctgcact actctcagct gccatcttat gcttcctgcg 5940
 gacagccctg cgacaaagct tttctctgct cctggtagcc ctggtgccct caggggcccc 6000
 gccactgcca gccaccaagg aactgtcct agctccactg cgaatgtcgc aagtccggtc 6060
 cctggctcatt gggctgcaga acctcctggg gcagaaggac cctctattgt cccagacctg 6120
 tgttggctgc ctggaggcct tgcttgacta cctggatgcc cggagcccag acattgctct 6180
 ccacgtggcc tcccagcctt ggaatcggtt tttgctgttt accctcttgg atgctggaga 6240
 gaattccttc ctacagacctg agatcttgag gctcatgacc ctgtttatgc ggtaccggag 6300
 tagcagtgtc ctctctcatg aagaggtggg tgatgttctg caaggtgtgg ctttggctga 6360
 cctgtctacc ctctgaaca ccacactcca ggccctgcat ggcttcttcc agcagctcca 6420
 gagcatggga cacctggctg accacggcat ggcccagacc ctgcaggcct ccttggaggg 6480
 ccttccccct agcacctcct caggccagcc acccctgcag gacatgctct gcctgggagg 6540
 ggtggctgta tcctgtccc acatcagaaa ctgacctca ggacttgaag gcccagaagt 6600
 ggagagagaa tgagacctgg agacaaaggg cataattgtt ggggaaatgg atgacagctg 6660
 aagctattca tatggagcca tatactctat tgttgaaata gaataaggaa ataaaatgat 6720
 acactcacat 6730

<210> 1426

<211> 3085

<212> DNA

<213> Homo sapiens

<400> 1426

aatctaaca ttaaagaaca aaaatttcaa gaacttcaag aaagactcaa catggaattg 60
 gaattaaatg agaagattaa tgaagagatt acccatattc aagaagaaaa acaggatatc 120

atcatttctt tccaacatat gcagcagtta cttcggcaac aaattcaagc taatactgaa 180
atggaggcag aattgaaggt gctaaaagaa aataatcaga cccttgaaag agataatgag 240
ctgcaaaggg agaaggtaaa agaaaatgaa gaaaagtttc ttaatcttca aaatgagcat 300
gaaaaagcac taggaacttg gaaaagacat gctgaagaac ttaatggaga aattaataag 360
attaaaaatg aattatcatc ccttaaagaa actcatatta agttacaaga acattataac 420
aaattatgca atcaaaaaac gtttgaggaa gacaaaaagt ttcagaatgt tccagaagta 480
aataatgaaa acagtgaaat gtcaactgaa aaatcagaaa acaccattat acagaaatat 540
aatactgagc aagaaataag ggaagaaaat atggagaatt tttgttcaga tactgaatac 600
agagaaaaag aagaaaaaaa agaaggctca tttatagagg aaataattat agatgattta 660
cagctttttg aaaaaagctt caagaatgaa attgatactg ttgtttctca ggatgaaaat 720
caaagtgaaa tctccttaag caaaaccctc tccttagata aagaagtaat tagtcaagga 780
caaaccctga atgttacgga caacagaaaa tcagttacta cagaaataaa agacaagata 840
tgcttggaag aagacaatgg atgtacagaa tttaaatcac caaataatca ttttgtagt 900
ttagatacag caatagaaac agaaaaaata catctagaaa gaaccagagg attagatgtt 960
caccatacag atgtaaatct ggagggttgaa aataacaaaa catcatttaa cagtatttta 1020
aatgagacag cacacaatac atatcacaat aataataaag atgtttctga aaatgagcca 1080
ttcaaacaat tcagattgct tccagggact cgagaacatg ctctagagaa ggaaattaca 1140
aatagtgacc aaaccaaagc agatttggac tcgtctctag atataaaaaa aaatcctgtt 1200
ccatgtcaga aatatagttt acggaattca agtaatgtta tgtagatga taaacaatgt 1260
aaaataaaac aaatacaact gttaactaaa aaaagtgagt gcagcatatt actttctaaa 1320
caaacttcag attttctgca agtctgtaat gatactttag agaaatctga actaactgtt 1380
ccctgtgata tagtaatcga ccaccatgtt tcatatgctg cttttagtgc taattcaaaa 1440
ctacttctga agaactcaga taaaaatgtc catagtatgt ctatgttggt gaaacctaac 1500
tcaagccctg ggggaaaaac tatgtgtaaa aatatgagt atatgcaaaa cagtcaattt 1560
aataactgtt tgggatactt agaaaacact aatgtgaaca tttcccatct tcatcttaac 1620
aatgagaata gtcatgcttc acaagccaaa gatgtgaaaa ctgctgttca catgaaaact 1680
tgcacagaaa cagagttttc caataaaaag aatcagattg atgagaatca ggtaactgaa 1740
gccacaaaaa atgacctctt cttttttgtg agcattaatg aaagacagca tacattgtta 1800
aataatacag agaaaacaga atcattaaat gacattgttt caggaaaaat gttcagttaa 1860

ggacagctgg aggaatcaca ttcatttcac atagagccat ctggagattt agtaaacaga 1920
agcggaaggt caacctttga tctttcaact tcagataaaa aaactgagaa aactccagta 1980
tacatgaatt tttcagaccc cggtccttgg tcaaaaagtaa atcacattga aagtcaaaca 2040
gcgagcagtt cgaccccttg catttctttg ttgctgaagg agagaccact agatccatca 2100
gaaaacaaaa agatcatttc aatggctctt tgtaaaaata ttggtgtgga tgatgttggga 2160
aaggatattg gaccagatac taccagcatt aacagagttg ctgacacttt gaataactgg 2220
agtatccatc cagatcccaa gggagaaccc agtgaagaga agaatgcaat ggcaaagact 2280
ttttatgatt cctcttttcc cacagaacat gtgaaaacaa agcctctgat atcaactcca 2340
ctacaaagcc atttgcaggc aatcaagacg actaaaaata cttctgggtga tgatgactgg 2400
cagagcctca ttacgaatca actaaataaa agtgaaaatt tactaagttt agaaaatgac 2460
aaccagccaa aaaaaagaaa agcagaagag acgttggaaa aaaacaacag attaaaataa 2520
tgtagataag tgctttcagt agtgaaatta tgtaactgaa attctggtat agtttttact 2580
agaataaaat gactgttgta tttaaagctc tacagtttgt ctttgctttt ccaagttttt 2640
ctaattgtgaa gaaattgtat tactctactt ctgtcttctc tctgtatatt atcctttctt 2700
taaagtgtc attgttctt caatatectt ttttaaagaa cagaatttat gtattgtatg 2760
acagacattg tgaccccttg taatttatta cttcatatcc tctggagttt gtgatttttag 2820
tataaatttg agacaataac tgtccagact aggcaaattt ttttagttta taatgtttta 2880
ctatgattta gggctttttt ttcaaagaac aaaaattata agcataaaaa ctcaggtatc 2940
agaaagactc aaaaggctgt ttttacttt gttagattt tgtttccagg cattaagtgt 3000
gtcatacagt tgttgccact gctgttttcc aaatgtccga tgtgtgctat gactaaaaat 3060
tgaaaaatta aacacagtgt tagtc 3085

<210> 1427

<211> 4086

<212> DNA

<213> Homo sapiens

<400> 1427

aataccagca acaactccta ccttcctgc atctgtcatc acttatgaaa cccaaacaga 60
gagatctaga gcacaaacaa tacaagaga acaggagcct caagagaaga acaggactga 120
cccaaacatc tctccagacc agagtcttg cttcactaca cccactgcta tgacacctcc 180
tgttctaacc acagccgaaa cttcagtcaa gccagtgct tctgcattca ctcatcccc 240
accagaaaac acaactggga tttcaagcac aatcagtttt cattcaagaa ctcttaatct 300
gacagatgtg attgaagaac tagcccaagc aagtactcag actttgaaga gcacaattgc 360
ttctgaaaca actttgtcca gcaaatcaca ccagagtacc acaactagga aagcaatcat 420
tagacactca accataccac cattcttgag cagcagtgtc actctaattgc cagttcccat 480
ctccccctcc tttactcaga gagcagttac tgacaacgtg gcgactccca tttccgggct 540
tatgacaaat acagtgggtc agctgcacga atcctcaagg cacaatgcta aaccacagca 600
attagtagca gaggttgcaa catcccccaa gggtcaccca aatgccaagt tcacaattgg 660
aaccactcac ttcactact ctaatctgtt acattctact cccatgccag cactaacaac 720
agttaaata cagaattcta aattaactcc atctccctgg gcagaaaacc aattttggca 780
caaaccatac tcagaaattg ctgaaaaagg caaaaagcca gaagtaagca tgttggtac 840
tacaggcctg tccgaggcca ccaactctgt ttcagattgg gatggacaga agaacacaaa 900
gaagagtgc tttgataaga aaccagttca agaagcaaca acttccaaac tccttcctt 960
tgactctttg tctaggtata tatttgaaaa gccaggata gttggaggaa aagctgcaag 1020
ttttactatt ccagctaact cagatgcctt tcttcctgt gaagctgtt gaaatccct 1080
gcccaccatt cattggacca gagtcccatc aggacttgat ttatctaaga ggaaacagaa 1140
tagcagggtc caggttctcc ccaatggtac cctgtccatc cagagggtgg aaattcagga 1200
ccgcggacag tacttgtgtt ccgcatecaa tctgtttggc acagaccacc ttcattgtac 1260
cttgtctgtg gtttcctatc ctcccaggat cctggagaga cgtaccaaag agatcacagt 1320
tcattccgga agcactgtgg aactgaagtg cagagcagaa ggtaggcaa gccctacagt 1380
tacctggatt ctgcaaacc aaacagttgt ctcagaatca tcccaggga gtaggcaggc 1440
tgtggtgacg gttgacggaa cattggctct ccacaatctc agtatttatg accgtggctt 1500
ttacaaatgt gtggccagca acccaggtgg ccaggattca ctgctggtta aaatacaagt 1560
cattgcagca ccactgtta ttctagagca aaggaggcaa gtcattgtag gcacttgggg 1620
tgaaagttaa aaactgccct gtactgcaa aggaactcct cagcccagcg tttactgggt 1680
cctctctgat ggcaactgaag tgaaaccatt acagtttacc aattccaagt tgttcttatt 1740

ttcaaatggg actttgtata taagaaacct agcctcttca gacaggggca cttatgaatg 1800
cattgctacc agttccactg gttcggagcg aagagtagta atgcttaca tggaagagcg 1860
agtgaccagc cccaggatag aagctgcac ccagaaaagg actgaagtga attttgggga 1920
caaattacta ctgaactgct cagccactgg ggagcccaaa ccccaaataa tgtggaggtt 1980
accatccaag gctgtggtcg accagcagca tagagtggca gctggatcca cgtctaccct 2040
aatggatccc tgtttattgg atcagtaaca gaaaaagaca gtggtgtcta cttgtgtgtg 2100
gcaagaaaca aaatggggga tgatctgata ctgatgcatg ttagcctaag actgaaacct 2160
gccaaaattg accacaagca gtattttaga aagcaagtgc tccatgggaa agatttccaa 2220
gtagattgca aagcttccgg ctccccagt ccagagatat cttggagttt gcctgatgga 2280
accatgatca acaatgcaat gcaagccgat gacagtggcc acaggactag gagatatacc 2340
cttttcaaca atggaacttt atacttcaac aaagttaggg tagcggagga aggagattat 2400
acttgctatg cccagaacac cctagggaaa gatgaaatga aggtccactt aacagttata 2460
acagctgctc cccggataag gcagagtaac aaaaccaaca agagaatcaa agctggagac 2520
acagctgtcc ttgactgtga ggtcactggg gatcccaaac caaaaatatt ttggttgctg 2580
ccttccaatg acatgatttc cttctccatt gataggtaca catttcatgc caatgggtct 2640
ttgaccatca acaaagtga actgctcgat tctggagagt acgtatgtgt agcccgaat 2700
cccagtgggg atgacaccaa aatgtacaaa ctggatgtgg tctctaaacc tccattaatc 2760
aatggtctgt atacaaatag aactgttatt aaagccacag ctgtgagaca ttccaaaaaa 2820
cactttgact gcagagctga agggacacca tctcctgaag tcatgtggat catgccagac 2880
aatattttcc tcacagcccc atactatgga agcagaatca cagtccataa aaatggaacc 2940
ttggaaatta ggaatgtgag gctttcagat tcagccgact ttatctgtgt ggcccgaat 3000
gaaggtggag agagcgtgtt ggtagtacag ttagaagtac tggaaatgct gagaagaccg 3060
acatttagaa atccatttaa tgaaaaata gttgcccagc tgggaaagtc cacagcattg 3120
aattgctctg ttgatggtaa cccaccacct gaaataatct ggattttacc aaatggcaca 3180
cgattttcca atggaccaca aagtatcag tatctgatag caagcaatgg ttcttttatc 3240
atttctaaaa caactcggga ggatgcagga aaatatcgct gtgcagctag gaataaagtt 3300
ggctatattg agaaattagt catattagaa attggccaga agccagttat tcttacctat 3360
gcaccaggga cagtaaaagg catcagtgga gaatctctat cactgcattg tgtgtctgat 3420
ggaatcccta agccaaatat caaatggact atgccaagtg gttatgtagt agacaggcct 3480

caaattaatg ggaaatacat attgcatgac catggcacct tagtcattaa agaagcaaca 3540
 gcttatgaca gaggaacta tatctgtaag gctcaaaata gtgttgggtca tacactgatt 3600
 actgttccag taatgattgt agcctaccct ccccgaaata caaatcgctc acccaggagt 3660
 attgtcacca ggacaggggc agcctttcag ctccactgtg tggccttggg agttcccaag 3720
 ccagaaatca cgtgggagat gcctgaccac tcccttctct caacggcaag taaagagagg 3780
 acacatggaa gtgagcagct tcacttaca ggtaccctag tcattcagaa tccccaacc 3840
 tccgattctg ggatatacaa atgcacagca aagaaccac ttggtagtga ttatgcagca 3900
 acgtatatc aagtaatctg acatgaaata ataaagtcaa caacatctgg gcagaattta 3960
 ttttttggaa gaagtttaat caaaggcagc cataggcatg taaatgaatt tgaatacatt 4020
 tacagtatta aatttacaat gaacatgcaa aataaaagga cttgtaaata aatgcattat 4080
 gaactg 4086

<210> 1428

<211> 3426

<212> DNA

<213> Homo sapiens

<400> 1428

acatgcattt ccctgctgct atgtgaaatg tgcgtcttct ccttccgcca tgattaagta 60
 agcaaacatt ttcctctaatt tcagattctt taaacaaaag ttgcaaatga atgtagcctt 120
 catctattgt aaaattaaag atggagatgg tcaaggggtt accgccagtc tgtttcttgc 180
 gctgataatt tttctagaca ttaaattctca ccatttgttc ccaacaaaga aagaaagaca 240
 ggaccaccag actctacagg gaagccaaga ggaagaaggg aaggagccca gaaatggaga 300
 gaagctggac tctagggatg gatctgggga tgctccacaa agtgcagctg tggagaatgc 360
 agaagaagag ttggctagtg ggacattccc actgaggagc atggcagggg gaatgtctaa 420
 tattcactaa gagaattctt gaaatgtaac atttagatga aactcttcaa gtttccttaa 480
 aatacaaatt catgactctc tttctttctc tctctctctt tctctctctc tttgggtatgt 540
 taaagtaatc aaggaaaggg attttgtttt ataactgggt tacacagggg agagaccaga 600

atagctgaaa gctgtgagac atgaagaaaa ttcaagattt aggagacatg cagaacatca 660
gtgtcttaggc aaaatggcag actgaccaac cccacacac tgaatcccta gagatattag 720
gacagggata ttgagaaaaa tttaccttta agttgtaaag gacaaggcaa ctcaacatat 780
tgaatgcctt gttgacaacc aggggctaata atttgggatg catattgggc atagatgcac 840
agaaaataat ttatcagtga cattaataat atgacatctc ttcgttgaga atttactgct 900
gtcttaatat cacaactcta aggggtcaac atccagaata aacttcttat cttacatatt 960
taaaattatt tgctaggcta catttttctt agaaaaatgc atatctgaaa cagaatattg 1020
atTTTTTcc tgggtcatac ataaagacca tcagaaatta attattgaaa aaacactgct 1080
atactcatta gagatatatt ttaattagat taattttgca ttaacagtcc atgagaagtt 1140
acaactaact tgcaacgaga cattaacatg catcatgttt gatataagta aaaatggaaa 1200
tgattagaag tatacaaata taaagtatgt tgctagtata tgcaagctta aaaaactttt 1260
acctgataga attagcaaga gcagctatgt tgagcttctt tcagttaaaa gtcattttcg 1320
gctatgtctc cctaaggata gaaatatac tgcttttgat ctcatttaga attctgctca 1380
cttttaggaa agtagggctg tttggaaatg gtcagccata tccttactga atttcctagg 1440
gcttgactgc acctactcta gttaacaagt aagatatagt tatatatgtt attataactt 1500
ctcaaagcac ttatatTTTg attttcttct ttttatgttc attatcttca tttggactac 1560
tccatgtgac aaaagcagtt attttcttct taccctctaa actggaccac atcgatgctc 1620
ttaggtccaa atcatattct ttaagaaaca agtgttcact gaatgattta ctgcattata 1680
taataggtac tatacaagac acctgaggcc cccacaccg tgaaaacaga tgTTTTTcc 1740
tgagacttgc ccaataggag agaaatTTTT aatttaccct ttctcagtaa accattatac 1800
aaaacagaag tgaaattatg gaccagtgga actcaatctg gctgacttgc aaccctatg 1860
tgttcataaa cccactgaaa tatataattt gttgtttata ttaaatatgc actgaagcat 1920
gattagataa acattgaaag taaattttta ttttaaccat cagtgggaagt atatggggtg 1980
atttaagtca ttcattattag tttattttta tcagggtgtc ctccttgtcc atagtgaaat 2040
acaatacaga gattatagcc tgtggcttga caggacatct tatagttggg aacaggacta 2100
cattaaaagg aaaaaacaat aaataaggat gtctaattat acagataaag aaagcaagtt 2160
cactcactcc tccaggacag caccagagac aacgttagaa ccaagagttt caaacctcg 2220
ccttgtatgg tttgcctgat gccatgatta aagaaaaggg ggtggggaac taagagagga 2280
agccaaagag aaagaattca gtaccaaaaca gcaatattca gatgttttat taaataatag 2340

gaggtgtttt gaccttgctg gtgaacagag gtgatctcaa aacatttgac agatataatt 2400
 aaggccataa ggcaataatt gcaaaagtca aggagccctt gccacctcca aagcatcacg 2460
 tgtggatgca ggaaccatat taacaacatg ggtagtcaag gagaaagcag atagaataaa 2520
 gctgtacca gcaatataaa gggacatgca agtgtgtgtt gtgcttaaga gtaaacttag 2580
 ggaaaaaagc tccccataac ctcgagaaac gtttctggat ctgagatata cattagcaca 2640
 tttagaaggt acctatttcc attattgtga aggagttgta aatgaaataa acaactttaa 2700
 ataatacctc ccttggtcaa actgcattaa gtattccctg atggaattca ttcacatca 2760
 ttcaaacaga atggtttgca actcaacctg cctagtgtgg ggtctggaat tcccaccaca 2820
 gtcactgtgc cttaagcact gttgcagcag aaggacttga agtaacacat gaatatataa 2880
 tgccaatttg cgtgtcagca tggattgttg aaattgaagt tagttaattg tcacattgta 2940
 acaggaaaag aatccaagtt ttggagctgg ttggaactga gttttcatct tctttctctg 3000
 ctacttaact gtgttatect gaacaagata ctcaacctcc atgagacaca ggtgaccatg 3060
 tgaaatatat atgtaaaatg tctggcaaac atctgattca ttaggtacc caaaattaga 3120
 tcattttcat tttcttttgc ttccttgga gttcaaaaca aaattctgag gtaagtttca 3180
 attaaaatgg gtcaggcaga cagattccag caagggtcaa gcaccccttt tcttttaata 3240
 aaatatctga atatctgaac aagaaacaac ttctgtttct caaggttgaa atgatgaatt 3300
 attgaacttc tgttgctgtt tgttttctct cttatctcct tactactaca tataaatgag 3360
 atatcttgct atcccactga tatctcaaat tcagtatttc ccaaataaaa cgtaatcttt 3420
 tctacc 3426

<210> 1429

<211> 3680

<212> DNA

<213> Homo sapiens

<400> 1429

tttgttgcca ggtggacgcg gccccggcct tcgcgcgcgg cagggatgct gcgagccccg 60
 ggggagctcc cgcgccaggc cgcccgtgc tccctctgcc gcctggggcc gggtcgcgga 120

cgcgcatTTT ttaagtggcg ctgtttgcct gcgtccgtag accgaggaaa cccgctctgg 180
gctcttgcag ccaatgccgg aacaggattt gctgttgcgt agcctcaaTt cgcaatgttt 240
tgtgggaagt taaatatgca tgtgaacatt cagactggga aatgggaacc tgatccaaca 300
ggcaccaaga gctgcttgaa acaaaagaag aagtTcttca gtactgtcag gagatgtatc 360
cagagctaca gatcacaat gtgatggagg caaaccagcg ggtagtatt gacaactggT 420
gccggaggga caaaaagcaa tgcaagagtc gctttgttac acctttcaag tgtctcgtgg 480
gtgaattcgt aagtgatgtc ctgctagtTc cagaaaagtg ccagtttttc cacaaagagc 540
ggatggaggT gtgtgagaat caccagcact ggcacacggT agtcaaagag gcatgtctga 600
ctcagggaat gacctatat agctacggca tgctgctccc atgtggggta gaccagtTcc 660
atggcactga atatgtgtgc tgccctcaga caaagattat tggatctgtg tcaaaagaag 720
aggaagagga agatgaagag gaagaggaag atgaagagga agactatgat gtttataaaa 780
gtgaatttcc tactgaagca gatctggaag acttcacaga agcagctgtg gatgaggatg 840
atgaggatga ggaagaaggg gaggaagtgg tggaggaccg agattactac tatgacacct 900
tcaaaggaga tgactacaat gaggagaatc ctactgaacc cggcagcgac ggcaccatgt 960
cagacaagga aattactcat gatgtcaaag ctgtctgctc ccaggaggcg atgacggggc 1020
cctgccgggc cgtgatgcct cgTtggTact tcgacctctc caagggaaag tgcgtgcgt 1080
ttatatatgg tggctgcggc ggcaacagga acaattttga gtctgaggat tattgtatgg 1140
ctgtgtgtaa agcgatgatt cctccaactc ctctgccaac caatgatgtt gatgtgtatt 1200
tcgagacctc tgcagatgat aatgagcatg ctcgcttcca gaaggctaag gagcagctgg 1260
agattcggca ccgcaaccga atggacaggg taaagaagga atgggaagag gcagagcttc 1320
aagctaagaa cctcccaaaa gcagagaggc agactctgat tcagcacttc caagccatgg 1380
ttaagcttt agagaaggaa gcagccagtg agaagcagca gctggTggag acccacctgg 1440
cccgagtgga agctatgctg aatgaccgcc gtcggatggc tctggagaac tacctggctg 1500
ccttgcagtc tgaccgcga cggcctcatc gcattctcca ggccttacgg cgTtatgtcc 1560
gtgctgagaa caaagatcgc ttacatacca tccgtcatta ccagcatgtg ttggctgttg 1620
accagaaaa ggcggcccag atgaaatccc aggtgatgac acatctccac gtgattgaag 1680
aaaggaggaa ccaaagcctc tctctgctct acaaagtacc ttatgtagcc caagaaattc 1740
aagaggaaat tgatgagctc cttcaggagc agcgtgcaga tatggaccag ttcactgcct 1800
caatctcaga gaccctgtg gacgtccggg tgagctctga ggagagtgag gagatccac 1860

cgttccaccc cttccacccc ttcccagccc tacctgagaa cgaaggatct ggagtgggag 1920
agcaggatgg gggactgata ggtgccgaag agaaagtgat taacagtaag aataaagtgg 1980
atgaaaacat ggtcattgac gagactctgg atgttaagga aatgattttc aatgccgaga 2040
gagttggagg cctcgaggaa gagcgggaat ccgtgggccc actgcgggag gacttcagtc 2100
tgagtagcag tgctctcatt ggcctgctgg tcatcgcagt ggccattgcc acggtcatcg 2160
tcatcagcct ggtgatgctg aggaagagge agtatggcac catcagccac gggatcgtgg 2220
aggttgatcc aatgctcacc ccagaagagc gtcacctgaa caagatgcag aaccatggct 2280
atgagaaccc cacctacaaa tacctggagc agatgcagat ttaggtggca gggagcgcgg 2340
cagccctggc ggagggatgc aggtgggccc gaagatccca cgattccgat cgactgcca 2400
gcagcagccg ctgccagggg ctgcgtctga catcctgacc tcctggactg taggactata 2460
taaagtacta ctgtagaact gcaatttcca ttctttttaa tgggtgaaaa atggtaatat 2520
aacaatatat gatataaaa ccttaaataa aaaaaatgat ccattgcaga tatttgatgt 2580
agttttcttt tttaaattaa tcagaaaccc cacttccatt gtattgtctg acacatgctc 2640
tcaatatata ataaatggga aatgtcgatt ttcaataata gacttatatg caggctgtcg 2700
ttccggttat gttgtgtaag tcaactcttc agcctcattc actgtcctgg cttttattta 2760
aagaaaaaaa aggcagtatt ccctttttaa atgagctttc aggaagtgc tgagaaatgg 2820
ggtggaatag ggaactgtaa tggccactga agcacgtgag agaccctcgc aaaatgatgt 2880
gaaaggacca gtttcttgaa gtccagtgtt tccacggctg gatacctgtg tgtctccata 2940
aaagtcctgt caccaaggac gttaaaggca ttttattcca gcgtcttcta gagagcttag 3000
tgtatacaga tgagggtgtc cgctgctgct ttccctcgga atccagtgtc tccacagaga 3060
ttagcctgta gcttatattt gacattcttc actgtctgtt gtttacctac cgtagctttt 3120
taccgttcac ttccccttcc aactatgtcc agatgtgcag gtcctcctc tctggacttt 3180
ctccaaaggc actgaccctc ggcctctact ttgtcccctc acctccacc cctcctgtca 3240
ccggccttgt gacattcact cagagaagac cacaccaagg aggcgccgc tggcccagga 3300
gagaacacgg ggagggttgt ttgtgtgaaa ggaaagtagt ccaggctgtc cctgaaactg 3360
agtctgtgga cactgtggaa agctttgaac aattgtgttt tcgtcacagg agtctttgta 3420
atgcttgtac agttgatgtc gatgctcact gcttctgctt tttctttctt tttattttaa 3480
atctgaaggt tctggtaacc tgtggtgtat tttatttttc ctgtgactgt tttgttttg 3540
tttttttctt tttcctccc ctttgacctt attcatgtct ctaccacta tgcacagatt 3600

aaacttcacc tacaaactcc ttaatatgat ctgtggagaa tgtacacagt ttaaacacat 3660
caataaatac tttaacttcc 3680

<210> 1430

<211> 4472

<212> DNA

<213> Homo sapiens

<400> 1430

cttgatattt aaaacagtta agcagagtgt gaacagcaat cattaggaaa atgatccatt 60
gaattaattg ccaaggggga aagagggagg ttgaaaacga tattgatggc aaatgtctaa 120
ggcagaatgg gtatttttaa ttctgttttt cctttcctat ttcattgggtg gtgaggttag 180
taactgtggt gtacaaaaca gtgctacgag gaaataaaag caagacagac aagttgaatg 240
tgaaggtttt ataagtagga ttaagaagtt tggagcttgt tctttcataa tagagagtca 300
tgaagggttt taataagaga gatgacacaa tctgaacttt ggaaataaag ctcaggcaga 360
agagcagagg gcagaatgga cacatggctg gaggcctttcc caataatttc aggaagagat 420
gagttgtacc aggacaggaa gagggccgga ttcattgctcc caaactctta catgttcact 480
gtcctggggt ctaatagacc aatgaccact gtgctttgta cttcacaat atacctcact 540
ggttttcatc ttctctgtgt gccacaagcc cttagcacag tgatgcgaca tagtaagcct 600
ttaatgagtg aacgaataag agagaacatc aaggacgata tagcagaggt gacagcacc 660
cagagatatt tgagatggaa aattggtggg tgttggtgct tgagaggcag caaggaatga 720
ctctggattt tgatctattg tacaacatgt gactatattt agtagcaatg tattgtacac 780
ttgaaaattg ctgagagagc agattttaag tgttctaagc acaatgacaa aagcatgcga 840
ggtaatacat atattaataa gcctgattta gctattctgc aagatatgca tatttcaaaa 900
aattatgctg tgtacataat atatacagtt cttgtcaatt aaaaagtgtt tttaaagaag 960
ttactgcaaa atccaaaaaa agaaagaaaa tgccatatga attgacatga caattggcca 1020
gatcccatth tatcaggcat agaatacaatt ttattattct agctgaatag gtcctattaa 1080
tcatgatagg taaaatggca gagatctgct ttttactagc atgcagctgt taacatttgc 1140

cacaactttt agacgttgca gttggtggga gggaacaagc aaacacttct gctaagtaat 1200
ctctttctcc tttttggata gagttaagac actgcatcta cccaaaacaa aaaagttaca 1260
atgggggtttg gttagcaaca ttttcctttg gctaggatct tgtggaataa aagtaacatt 1320
tttttttaac tagaacattc tatcatggcc tctctattgt taactttaga ctctgtagct 1380
gttcatttgt atcatcaagc tctgaagatg acttgcagcc catctccact tccatggagg 1440
tttcctaggc ccaggaaaag gaaggtaagg cccttaccac acctcccac ttatggaggc 1500
cctctgccct atggggaaga ctctacacct gtctaacgaa agctttgagc ttttaagagg 1560
aaaggctttt aattgaatat ccagttttgt tcataactgc tctgacattc ccacaattcc 1620
ttttgaacaa agaactgaac tctgtttcat aaacgatgtc ccacacaaaa gagaaaactg 1680
ttactttgca cattcttgtc taccctgtga agaaacggaa tagttttgaa ataaagctag 1740
acagtgtgtc ctacaagagg gagtattttg ctgggaacac aaatgagtca aataggtgag 1800
tcaggaaatt agccaccac tctgctgctg agcttggagc ttttaaaaaa ctcatttaat 1860
tagctccctg gcagggtcga atcttacacg caatgtccaa gactctctgc agcacctcca 1920
caggagagaa tctttgggac agctgtggac atgcacatac cagctctgcc cacaccttgc 1980
aaggctggta aagataacct aggtccaagg caggactaaa agtcaatgcc catgtaaattg 2040
agagtctctg ggaccacaag aggaaaacac tctggacatc gtgtggatag gaaggggaaa 2100
agatgcaatc cgatttctta aacctttgat tttatcagac aatttgggtc ttttgtcttt 2160
aacttacttt agttccactc atcttttagt ggcagatttt catgcttcac ttgtggcttg 2220
gagttccttc tcctctacat accctcttct tacatgatgt ttagctaga gaaaaattca 2280
ctttgtcttt caaattgata ataaaagata caagcacata tgatcttatg ctcaaggaga 2340
tgaacatgca catgtacaca cacacacaca cacacacaca cacaacaca cccctacctc 2400
taggtaagca taatagagga atgtgataac tgagaaatgc cactgaatcc ttgcagatct 2460
ctgagaaaat aatttcagcc atcaaattgt aagggtcttt gagcggaatg agtgaggagc 2520
cagtgggtgtg gactgcactc tgagaagctt ttgataaagg atgaagagag aaaaagccat 2580
aacttatgag gtctaagtga ggctttctct tagacatcta atttataggt tgacaagaat 2640
aagccagagg aaagagaggc tgaagacaga gagaaaggat gagaaaactg ctggagcaag 2700
gtctggagaa ggcagaagaa aactgaaggg cagaagggga atgtgtcttt tcaggaaagt 2760
aagatcatct gctgagagtc aggagagaaa cacatgagtt agaggctaca ggaaggttga 2820
aaatgtgcag aatatcttgg aggcaggtaa tgcaagtttc atgaaaaact gttagggtca 2880

aacataggat aattctcagt ctgtaagaga aaaactgtaa cactaaaatg atataatatt 2940
ttgatttttt catcatacca aggggtctttt cccctacaac tctattatag catcaaaact 3000
aatccttttt catctcaaag atgataacca cacctagtga taaaaataca gatcatgact 3060
acatgactcc atgagtatct caatgtgttt actcttagat gtttgacaat tttttttaa 3120
ctgctgtctt ttcagctgac cactttcttg atgccctttc agaacttcca agtctttagg 3180
gtgatttagt gacagcccct tccctagaat ctccattagc agctctatga cccctatttt 3240
ctaagtgttt tacaaggaat ttaaatttca aatgatattt taatgtggca gctctcagca 3300
acctagcaca agatctgcct aggtcgaagg acaacaacat acaatagttc ctaccctgt 3360
cctcctacgt tgtcattcag ccttgtcaaa atgctggctc tcccttggag agtgctctct 3420
atggttttct gtgcaaata ctatgtatga cacttgtcca tgacacacag agaatcaaaa 3480
acatctgaag attttgcagc tgaatcggtg tcaggcctga caggtgtaga accttggat 3540
tctcataaac gaggtagcat ttttccattt ccaaaaaatg attattgtga aaatgtattt 3600
tctttttcta agaaggagga tggaggagga aattctcctg taacttttcc cactttcctg 3660
aaaaattgta tacggtgaga tctgaaggag aggccttcaa aaaagttgtg gtatctgggt 3720
gcaggctgaa atatgggaat tattttgaga attattaaat tctcagtga gacttagcag 3780
caaaattgat gcatggattg attttgccag tcaagctctg ccagtcataa tcctagaata 3840
caagtgaaaa gactaacct tctgagttac atgagagaaa caatgccaga tctacaaagc 3900
taatgactag tcattcaatt tgttttaggtc attctaaatt ttaagttaca caaaacatca 3960
tgaggaattt agccctaaaa ctttgcaatt ttattttaac catcaatatg ctatatcatt 4020
ttggtactga ggtaatagtg gagaatatat gatatgcatg cacacacttg tagccttct 4080
caaacagggt tccttgggga aaacaagctc ttatgcccc gagcaatgtc ttcaaagtgt 4140
ggcccaggga cccctggagg ttcctgggaa ctatccagga agatcctcaa ggtcaaaact 4200
attttcacia taacatgaaa tatgttactt gcatttttta ttctaattct ttcattagtg 4260
tacagtggaa ttttccagag gctacatgat gcaacagatt gaatgcagaa gcaagatacg 4320
agaatccagc tgtcttcatt tgcactacat gttaaagagc tttgcagaaa tgtgaaacaa 4380
tgccactttt ctaatttttt tgttttggaa aataaacttt tggtaaaaa atgttattta 4440
tattaacatg taaatgtttt atgattctta tt 4472

<210> 1431

<211> 3775

<212> DNA

<213> Homo sapiens

<400> 1431

```
atgatgcttc aggacaggac gcacggggca aacgcctggg caccggggac ggggcagcgc 60
cctcaggcag ggtgtccacg ggggtgcccc gggctgccgg aacaaagacc ccagtactgc 120
ggggcttaaa acaacagaaa cgtgttgtcc tccattctgg aggccgggag tctgacttca 180
gggtgtgggc agggccgcct tccctgcggt ttccgggaga agctccttcc tgcctcctct 240
tccggcttcc tgcctcttcc ggcttccctgc ctcttccggc ttcccgcccc ggtgtcccca 300
ggtgtcctca gcagccgctg catcgctccg gtctctgcat ctgtctgcac aaggccatct 360
tcccgggcac ctgtttcctt tctgtgtccc ctccgcttcc tatatggaca cgagtcatag 420
gactgagggc ctaccctgct cctgtgtgac ctcatctaaa cttaatcact catatctgcc 480
aagaatctat gtccagctac agtcacagtc tgaggttctg gatgaacatt ttggaaacta 540
ttcaaccacac tgcattacc agctgtggct atatatatat atatacatat acatatttat 600
tttttagtga cagggtctcg cgggtgttgc caggctggag ggagtggtct cttcacagac 660
acagtcaccg tgtgctacag cttccaactc ctgggctcga accatcctcc tttgtcagcc 720
ccatgagtac tggggagcac aggtgtgggg cactgtgtcc ggctgtggtg acagatggag 780
cccccgacac aggtttgtaa ctcaaggcac tgacatccaa cctgaagggc aagagcaggg 840
cagcgaaaagt gctgcagact gaggccgctt caagcctgga cacctgcggg agagaaaccc 900
ccaggagcca ggatcaccga acacccaaag acgtcccgt ctgaaaagag gctgccgcct 960
caataaacag gaggagtcac agctgagaaa ccagaggcct ccataccgtg agttggcgcc 1020
aggcgcaggc ccgtcattgt gtcacatca ccacctcca cgcaaagaac ttctcatcgc 1080
acaaaagcga aattctgccc ggaaggacct tgtatgtcac tgccacgctt gatgagagag 1140
aacttcttat ttctgtttta atcctcgct cctgttcaca cggcagcctg tgctttggaa 1200
ttgtccaac cacagcgtct gcatggcagc ctccctacct gctcagctgg gaagtgcagg 1260
ccccccaggg gtccagccca ggaggtgggg gctgctgggc tccaccaag gagaggagcc 1320
tgtgcctggg cccatcccc agccatgcca gccacacca gctgggacct gcgggacct 1380
```


gggcacaggc aggactcacc cctggagctg tggcacgggc agagggggccg ggcagcagag 1440
gccacctaa g tccaattccc cagaatagtc actgccacaa agggaggcag aggtggaaat 1500
ccctcctgga cttgggagct ttgtgaaatc gacgcttagt caaggtgatt ctcccaggag 1560
cctgtgtagc taccggcaga tgccgggcac tctcctgctg gctatgcaca gagctttccc 1620
cactatttat ccagtcagct tcttacagtc gtcactttct ctaaagtga aaaaccacat 1680
gcgtttcata tgtctcttcc tcagaaatac ctgactgcga agtggagact ctttcctct 1740
cagtatgttc attctcttga caatgcctgc tccttgccctt cgtgttcaag ccgacaatgt 1800
taaacacaca cattgaacac atttattgac atttcttctt cttttttttt gaaatggagt 1860
ctcgctctgt cgcccaggct ggagggcagt ggcgcgatat cagcttactg caagctctgc 1920
ctcctgggtt cacgtcattc tcctgcctca gcctcctgag tagctgggac tacaggtgtc 1980
cgccaccgtg cctggctaata tttttgtatt tttagtagag atggggtttc accgtgttag 2040
cgaggatggt ctcgatctcc tgacctgtg atctgcccgc ctcggcctcc caaagtgtg 2100
ggattacagg catgagccac cgcgcccggc ccaatattta ttgacatttc atagaagagc 2160
cctcagccac aacgtgatt ctgtgggtta aattagttca taccctcca agtggcagt 2220
atgttcagat gtgtcgctca tgttcctgtc tcatgaaatg cgggtaaaag tgatgcctgc 2280
agctgccgtt tgcatgtgtt tggaaattaa gtgtgggggtt actgatagcc catcgaagag 2340
aaggaattac ttattccctg taatattgag acctttccag tttatcctgt aagaaggctc 2400
tggaggacgt caccgtggag agagctgaga ctgctgttga cctcatgggt cttcatgggg 2460
aggcgtgttc agcagatcaa cttgttaaaa gcatgaggcc ctggccttga gcaagtggag 2520
gatttagaga cagaccagag tggactcact gtctgttctc cccaggcag ttttgctgct 2580
tacaagtatt tgccttgaga tgcctttaat cagctgcttc cctgcggttc ctgcgggatc 2640
agccagctgt gagcatcatc acgtgtgcca ggctggctgg gtcgtgatgc catcttctcc 2700
agtggcccca gactcagacg tgtggtccgg agaagagaca ccaggatagg cagcggggca 2760
gcaatggctg ttctgctttt gaggccaggg gatgcagctc tggggccac tgcagccact 2820
cggctgtggg ggacagaaag gtctcccagg ttccacaccc tctgtcctgt caccttgcag 2880
ctttgcccc caaaagacat ggaggctctt tcgtactcc tcgaatctgg gctgggcctg 2940
aggcttactt tggccaatag actgtggggg aaagaagaat gtgctgtcgt ctggggcctc 3000
aaggggcctt gcaagtctct gctctctcag acccctgctg gaccggggg ctggcctgct 3060
ggagaatgag agaggagagg ggagtgccca tttgttccag tcaaggacat ctaggccag 3120

ctgacacca gccgattccc agacacggga gagagcccag ctaagtgtgg cagaaccgcc 3180
 ttgggacca caatggacct cagacacatg agtggacca gctgagacca cacctgcccc 3240
 gctgtccaca aacgtgtgag cagtactacc tgtttatcac ttcaggccac ttaccgtggg 3300
 ttgcttgta tgcagcagtg gctgacggat gcaactgacc actgtgagtg gctgcacaga 3360
 taggagtcca ggcctagctc atagcaaggt atttctgcag tttgccagga aggagaaagg 3420
 aagaaaaagg agaagaaagg gaagtggagg ggaggtgcag ggctgggctt ctggttcaag 3480
 cccacagggtg ctgtcctcac ggggtgttctg tggtccccga gagggcgcag tggctctgct 3540
 gggctaggaa ctgagcgaga actttcctgg tgctgaata ttagcaacat tccttcccag 3600
 cactgactgc agagggttaag agccggaaac tacaatttgg aaatttaatt atatctccgg 3660
 aagaaatgta tgcttcttag aatgatttta ttcaaaaagc cttcaaaaaa tagaacctac 3720
 tttttcccta tattgtgatt aattcaaacc aaataaaagg aaccgttgaa ctctt 3775

<210> 1432

<211> 3008

<212> DNA

<213> Homo sapiens

<400> 1432

atgctcagtg cggacgccgc gccgccgtcc gccaaactcgg aagctcgcgc tcccgggccc 60
 tgggggcgag aacgccggcg gcgagccggc gtcgctcgcc gccccagac agtggcaaac 120
 ttcgcgcggt tcccggagct cgtccgggcg aggcagatac cgcacaaata aaatcaaadc 180
 caagtcccc atcccaacc gaatgatgga ggctgcggcg gccggagtga cccgcgcgc 240
 gccagcccca gcccgtagc cgcggaccaa cagcgccaca gcgagcgagc gagcgaggag 300
 ggggagagag ggagtctgtc tgcaaagtgc tgctccctgg tgctcagagg cggctgctcc 360
 agctccaact ctcatcatt tcgccgttta acatgagaga tcatggccgc cttcgggctt 420
 ctcagctatg agcagagacc gctgaagcgc ccccggtcgc ggccgccga cgtctacca 480
 caggaccca agcagaagga ggatgaactt actgctgtga atgtaaagca aggttcaat 540
 aatcagccag ccttactgg agatgaacat ggctcagcca gaaatattgt aattaacca 600

tcaaagattg gagcttattt tagcagcata ttagctgaga aactgaagct taacactttc 660
caggacacgg gaaagaagaa accacaagtt aatgctaaag ataattattg gctgggttact 720
gctcgatccc agagtgcatt tcatagttgg ttttctgact tagcaggaaa taagccactt 780
tctatttttg caaaaaaggt tcctatcctt agtaaaaaag aggatgtttt tgcataattt 840
gctaaatatt ctgtgccaat ggttcgagca acgtggctga tcaagatgac ttgtgcctat 900
tattctgcta tatctgaagc taaaattaag aaacgtcagg ctcttgatcc gaatttggag 960
tggacacaga tatctaccag atatcttcga gagcagttgg ccaagatttc tgacttttac 1020
cacatggcct ccagcacggg cgatggccct gtccctgtgc caccagaggt ggagcaagcc 1080
atgaagcaat gggaatacaa cgaaaagcta gcatttcaca tgttccagga aggaatgtta 1140
gaaaaacacg aatatttgac atggatcctg gatgttttag aaaagatcat cttgtgatag 1200
acacctctta gccgctgctc acaacagcat tgaagtggga gccgtgtttg ctgtcttaaa 1260
agcaattatg atgcttggag atgccaaaat tggcaataac agtgtcagct ctttaaagaa 1320
tgatgacttc accatgagag gtttgcaatg tgatgggaat gctgatgata tctggactgc 1380
ctcacaaaat ccaaaatcct gtgggaaaag catttcata gaaactgcca atttaagaga 1440
atacgctaga tatgtactga ggactatctg tcaacaggaa tgggtaggag agcattgctt 1500
aaaagaacct gaaagattat gtacagacaa agaacttata ttggaccctg tgctttcaaa 1560
tatgcaagca cagaaattac tgcagcttat ctgttatcct catggcatta aagaatgtac 1620
cgagggggac aatctgcaaa gacagcacat taagcgtatt cttcagaatc ttgagcagtg 1680
gacactgagg caatcctggt tagaactcca gctaataatc aaacagtgc tgaaggaccc 1740
tggctctggt tctgtggccg aaatgaacaa cttactggac aatattgcaa aggcaacaat 1800
agaggtattc cagcagtctg cagacctaaa taattcttct aattctggca tgagcctctt 1860
caacccaaac agtattggaa gtgctgatac aagtagcacg agacagaatg gaataaagac 1920
attcctaagt tcctccgaac gcaggggtgt atggttgggtg gccccctca tcgccaggtt 1980
gccaaacttct gtgcaaggaa gagtgtgtaa agccgctggg gaagagctgg agaagggaca 2040
gcacttgggt tcttcttcca aaaaggaaag ggacagacag aaacagaaaa gtatgtctct 2100
tttgagtcaa caacccttcc tctcactggt acttacctgc cttaaggagc aagatgaaca 2160
aagggaaggc ctctaacat ctctccagaa tcaagttaac cagattttta gtaactggag 2220
agaagaacga taccaagatg acataaaagc gcggcagatg atgcacgaag cattgcaact 2280
ccgcctaaat ttggtaggag gaatgtttga cacggtgcag aggagcacc agtggactac 2340

agactgggcc ctgctactcc ttcagatcat tacttcagga actgttgaca tgcacactaa 2400
 caatgaatta ttcacaacag ttcttgacat gctgggtggt ttaatcaatg gaacgttagc 2460
 ctctgaccta tcaaatgcat cccctggggg atctgaagag aacaagcgtg catacatgaa 2520
 tttagtaaag aaactgaaaa aagagctagg agacaagcga tcagaaagta ttgacaaagt 2580
 tcgacagtta ctacctttgc cgaaacagac atgtgatgtc atcacttgtg aacctatggg 2640
 ttccttgatt gacacaaaag gaaacaaaat tgctggattt gactctatag ataaaaaaca 2700
 ggggtctccag gtctctacga agcagaaggt gtccccgtgg gacttgtttg agggtcagaa 2760
 gaaccagct cttttgtcct gggcctgggt tgggacagtc cgagtggacc gaagagtgat 2820
 caagtacgag gagcagcatc acctcctgct gtatcacaca caccctatgc ccaagccccg 2880
 cagttactac ctccagccac tgcccctgcc tcctgaggag gaagaggaag agcccacatc 2940
 tccagtttct caggaaccag aaaggaagtc cgctgagctg tcagatcagg gaaaaaccac 3000
 aacagatg 3008

<210> 1433

<211> 2972

<212> DNA

<213> Homo sapiens

<400> 1433

aaggaggagg agtggagctg cagggaggag gctcgacagg atcgcccca gcctggggca 60
 gctgggttgg cgaggcgggg gctggttgct gccctggcgg gcgaggtgat aaaccatggt 120
 gtagaatgcc attatcccca cctccagctg ggggcgcctg ggcgtatctg aaaaccttgg 180
 gggaagtgtt cacgtttttg gcgcttaaga aaaggaagaa gcggcagcta gctgcagagg 240
 ctgttccagg ctttccagcg acatgcaga acctgcaccg agtgccactt ggaccgcagt 300
 ctggacctga agccttgggc cggggcaccc gtaggagctc agccctcacc gctcccgccc 360
 tctttggatt ctcttctccc cgagcttggc cagagttcag gtctcctggt ttctggtctg 420
 cccggttaaga gtgcaggagt gcagaggtga ggagggggag ttaggagtct tggtccggtt 480
 ctcagcatag tgagaagtct gaaaagaggt gatgatccgg ttgtgcttga aggggagagg 540

ccaaagccca ggacattctg ccttttttagg ggattttacct ttcaagccct atttgggtctc 600
cactagcctt tgcttctgag gatgaaggag ttgagcctct gttacatgga tgtctacaga 660
gatcataccc cttgccctga acgaccgaga gactgatagc tctagggcca gcacctgaga 720
agcctgtagc ctgcctgcca gtggactcct gtatccggag tagacagccc tcctgacccc 780
cctgctggct gcctgcctct agtgtctttg attcctgcag ctggccaggc cttccttgca 840
aatgacgctg agattcagca gtttgtgcac agatcagatt ggctgcttga gtctttggca 900
tcctgagcca tctcccttgg gccttcagaa gggctatgtc atcctcggtg ggcatggcct 960
ggatcctgtg acctctccat ggggtgtccag tctcaccctg ccttcaatca ctcactcagc 1020
ctttccggct ttttggggac aagccccgat ccaccagaca cgtctattac ctgtgtgttt 1080
cttttagcag tgttcaaaga aagagatcta tttccatttt ttctcccata acttgacctc 1140
taactcattc atcataatat aagcttgacg ggtagacatg cccgtaaagt tgtgtccaaa 1200
tgcttactgt gggaaagagg tctgcctcct gctaagctga tttcctgggtg agctctggga 1260
aattcttcct gactaatggg ttgtttcagc attgcagtct tgctctttct gtggatccag 1320
attcggaaaa gattgtgcct tttggtgaaa ctctgaatc tacaggagat aatcgaaaag 1380
gctgaaggtc tgtgcagatg gctggtgctg ctgctcaagc agaaagagaa acttctttgt 1440
ggcttgtgtc tgttcccaac acaggagaga cttgggggtgt ccagtcagct gtggtgctcc 1500
tactttggat tctcattgaa gctgaggctt cctctttaag gacacacctg ccaggccagc 1560
atgctcatgg tccttgtcct cctggcacat tctttggtac agaggttaag atcctgatga 1620
tgtgagagtg tgcctcctag agttggctcct gttgacacat ggcccctgag tgccacggag 1680
gtttggagat ctcttttgta tgcagggcct ggatgagctg gtgcattgcc acccttgatg 1740
cctgacttgg gcagcccaca gagggatccc agggaccata agatgtgtat ggtagaggaa 1800
gaactggtac aactgaccct ttgctggtga atggattgaa ggcaggaaga agataggttc 1860
ttcttggata gatgtacagg tggccttgct gcagctgaac agtcaggtga agcctctcac 1920
ttaggcctag tgctggagaa tttacaggcc cacttctgct ctagcctgca cgactgatcc 1980
tttgatctga caccagatct gaattctgga ctctggaatg cctgtctgtt ttaccagttt 2040
ctctttgggtg gtgatgctag gaaagcaatt tttctcaaag gcttggatgt ggacactagt 2100
ctggtatcta ataattgctg cccacttttt cctgacttct tgggagaggc attcatgagt 2160
ccaaagctga ggtcaaaatc acttctgtct tatctgacat tatctctcaa agcaaactctg 2220
gattctagcc tccagaatgc ccatttcttg ggccagtttt tcaactggtaa atctgcaagg 2280

gtacaggttc catttaaacc atgctggttg ggtatccttt tgacttggca taaaatactt 2340
 ctcccttcatt atgattcact tgggtgaaag ccaacagaaa gtctggaaag atccactgtg 2400
 aaaagatttc atctggactc cacagacacc gctggccagc tctcacttgc acaggatttc 2460
 cgcacaccga gccagcccca gcccttgctt caatatcttc ccactccagc tcattaaaca 2520
 ttttagtttt ttgttatata ttttaagacac tgaagaaagc ataggaaacc agcaaaaatt 2580
 gaattttgct ggaatttaag tttgagagca gcccgaaga ggaacacatt gggtaggtgtag 2640
 acatgttgtg ctttttaatt ttttctctgt aagatagtca acaataatta atttgaacaa 2700
 gaaaaaaatg gttgtcatac atatataaaa gttaaagtcta gaaaaataaa aagtttttgt 2760
 tttgacctaa ttcagattat ataaaaatag aaatcacagt atttgttttt acatatcttg 2820
 aaaattaaat aaccttgaag tgataaagtg cagaaaataa tgtgaataat aatgttgagt 2880
 tttctagtcc ctcttctgat ccttcacctt ggtagcttat atcctgtttt gctgcataat 2940
 aaataatttt attctcacct ttgggaaata cc 2972

<210> 1434

<211> 2890

<212> DNA

<213> Homo sapiens

<400> 1434

gctggggctcg tcgtccgggc cgggtgggct gcggcgcgcg gcaggcgctc tggcctggcc 60
 tggccgccgc tgagcagtcg gggccggtgg gtggcctcga acgccgggac agaccgacag 120
 acggactggc cggcgggtccc gcgccccga gcggagcggg cgggacggaa acgtccgggc 180
 aagttaggggt cggcagggtt ggaagcccag cgaggctaga ggccagtccc aaagtctcca 240
 ggcatcaggg ctgcagccca ggagcctcaa ggcggcccgg cgggcgactg gacggccgga 300
 caggtcccga gcagccccgc ccaacatgga ccagacccc caggcgggagc tgcaggtggg 360
 catgcgggtg gtgcgcggcg tggactggaa gtggggccag caggacggcg gcgaggcgcg 420
 cgtgggcacg gtggtggagc ttggccgcca cggcagcccc tcgacacccg accgcacagt 480
 ggctcgtgcag tgggaccagg gcacgcgcac caactaccgc gccggctacc agggcgcgca 540

cgacctgctg ctgtacgaca acgcccagat cggcgtccgg caccccaaca tcattctgtga 600
ctgctgcaag aagcacgggc tgcgggggat gcgctggaag tgccgtgtgt gcctggacta 660
cgacctctgc acgcagtgct acatgcacaa caagcatgag ctgcccacg ccttcgaccg 720
ctacgagacc gctactcgc gccctgtcac actgagtccc cgccagggcc tcccgaggat 780
cccactaagg ggcatcttcc agggagcgaa ggtggtgcga ggccccgact gggagtgggg 840
ctcacaggat ggcaagccgg cggagctgca gcgcaggggtg agtgctgaca gccagccctt 900
ccagcacggg gacaaggtca agtgtctgtt ggacactgat gtcctgcggg agatgcagga 960
aggccacggc ggctggaacc ccaggatggc ggagtttatc ggacagacgg gcaccgtgca 1020
tcgtatcacg gaccgcgggg acgtgcgcgt gcagttcaac cacgagacgc gctggacctt 1080
ccaccccggg gcgctacca agcaccactc cttctgggtg ggcgacgtgg tccgggtcat 1140
cggcgacctt gacacagtga agcggctgca ggctgggcat ggcgagtgga cggacgacat 1200
ggccccctgcc ctgggccgcg tcgggaaggt ggtgaaagtg tttggagacg ggaacctgcg 1260
tgtagcagtc gctggtcagc ggtggacctt cagccccctc tgcctggtgg cctaccggcc 1320
cgaggaggat gccaacctgg acgtggccga gcgcgcccgg gagaacaaaa gctcactgag 1380
cgtggccctg gacaagcttc gggcccagaa gagtgacca gagcaccgg gaaggctggt 1440
ggtggagggt gcgctgggta acgcagcccg ggctctggac ctgctgcgga ggcgcccaga 1500
gcaggtggac accaagaacc aaggcaggac cgctctgcaa gtggctgcct acctgggcca 1560
ggtggagttg atacggctgc tgctacaagc cagggcgggc gtggacctgc cggacgacga 1620
gggcaacacg gactgcact acgcggccct ggggaaccag cccgaggcca ccagggtgct 1680
cctgagtgtt ggggtgccggg cggacgccat caacagcacc cagagcacag cactgcacgt 1740
ggccgtgcag aggggcttcc tggaggtggt gcgggccctg tgtgagcgcg gctgtgacgt 1800
caacctgccc gacgccact cggacacgcc cctgcactcc gccatctcgg cgggcactgg 1860
agccagcggc attgtcagg tcctcacgga ggtgccaaac atcgatgta cggccacaa 1920
cagccagggt ttaccctgc tgcacatgc ctccctcaag ggtcacgcgc tagctgtgag 1980
aaagattctg gctcgggcgc ggcagctggt ggacgccaag aaggaggacg gcttcacggc 2040
gctgcatctg gctgccctca acaaccaccg cgaggtggcc cagatcctca tccgggaggg 2100
ccgctgtgac gtgaacgtgc gcaaccggaa gctgcagtcc ccgctgcatc tcgccgtgca 2160
acaggcccac gtggggctgg tgccgctact ggtggacgct ggggtgcagt tcaacgccga 2220
ggacgaggag ggggacacag ccctgcacgt ggcgctgcag cgtcatcagc tgctgcccct 2280

ggtggctgat gggggccgggg gggacccagg gcccttgtag ctgctgtcca ggctacaggc 2340
 ctcgggcctc cccggcagcg cggagctgac ggtgggcgcg gcggtcgcct gcttcctggc 2400
 gctggagggc gccgacgtga gctacaccaa ccaccgcggt cggagcccgc tggacctggc 2460
 cgccgagggt cgcgtgctca aggcccttca gggctgcgcc cagcgcttcc gagtgcgcgc 2520
 gcaggatgaa gaagtgcac aggtgccagg tggctgtag caagaaactg cgcccagacg 2580
 gctctgagggt ggcgagcgcc gccccgccc ccggcccgcc gcgccagctg gtggaggagc 2640
 tgcagagccg ctaccggcag atggaggaac gcatcacctg ccccatctgc atcgacagcc 2700
 acatccgcct cgtgttccag tgcggccacg gcgcatgcgc cccctgcggc tccgcgtca 2760
 gcgcctgccc catctgccgc cagcccatcc gcgaccgat ccagatcttc gtgtgagccg 2820
 cgccgtccgc cgcgcccag ctgccttcgc gtgccccgc cctgtgtttt ataaaaagaa 2880
 agattctcgg 2890

<210> 1435

<211> 4007

<212> DNA

<213> Homo sapiens

<400> 1435

tgacaccttc cctccccgtc egggtctct gcagcaattc atcccgtcac tctcccaacg 60
 accccgggca cacctccggc agatgcgaaa tatgctgctc ctcaggagga aagatgaccc 120
 ggaggaccgc gggaggacct tcccactcgc gatcttccca gtgccccaaa gccagggacc 180
 ccaactgccgc ctaccccagc ccgcggcacc gaacttgctc acaactgtga ctctcaggt 240
 cggattggac accaccggaa acggaaattc accgtcgcgc cgactctccg gagggaaaca 300
 aaaaggcaga aaaaagagac cggcgcctgg acgactttca ggggagagct ggaagaaaga 360
 ctgtcaacag ctgagtgcgg gcgccggcgc cgtctacgca gtgcgttcca ccgggtccgt 420
 atccctcccg attccgcccc accccgccct cggaactcgc tgcctcaact cctgcggtgg 480
 gactccggag cagcgtacac cgcccttgcc ttagtcctcc ccaaggccag ggcagctgtg 540
 cggcctggcg cgggttactt ggtgtggtgc aaaaagccag aaggagacac atttggctct 600

ggccaccccg gagtcacca aacaaaaagg taaaaggaac ataaaaaagc cttctggaaa 660
gtgtaaaaaa attcattgca cagtgatttt tgtcttgtga aatcatagtt actgttatta 720
gcagtttttt aaacgtttta tattcatttt ttatgggtgt ctgacatatg agctgcttca 780
agtgtttttg gacatagctt ggggtgtaaaa tgtaaaaagt ggatattttc aatttgtagc 840
tttctttttt gaaacttact gaagtttggt ctaaataatat ccccttcttt ctcacctacc 900
ccaacacatt tttaaaaaaa acaccaccaa atatccatta cagcattgat gtgagtgtag 960
atgaagtaaa aactttggct tccctgatga catacaagtg tgcagtgggt ggtaagtgat 1020
cgcttttctt gctacctaat gagaactctg gggaaatatg tttactcaca tggttactgt 1080
taagatgcta tagaaatata cttatcaga actgattttt ttttaagttg tcctctttaa 1140
gacctgcac atttttcaat tagtctaaat taatatatag ctttttttta tgtgagggat 1200
tttttttata ggagcttatt gaattttagg tctagatctt tgttttcaat tcctcaacat 1260
attctataaa taagaccaa ttatagtaga aggatagtaa ataagctatt atcttttaga 1320
agttgtaaag agcactgatt aactctatat tagagacccc gccctgcct tggctgcgcg 1380
ggccccgcc aaagggccca tggctggcgc agccgagctg gcgagggcag cgcgggtccc 1440
ccggaacgcc ccccgaggcg agcgctaacg aggtccggca ccatgtgcta ggtcactccc 1500
agtgcaaggc cacacttggg ccatccgagc aaccctcct cacgtcaggg gtcaccctcc 1560
ccaccacca ttgcagagtt catctggctg gccacacgca gccaaatgga ggccactgag 1620
ccacaggata tgggtggtcta tgaccagagc acacgggacg ccagtgtgct ggccgcagac 1680
cgcttctct ccatcctgct gagcaagctg gacagctgct tcgacagcgt ggccatcctc 1740
acgggggggt tcgccacctt ctctctctgc ttccccagcc tctgccaggg caagcctgct 1800
gccctgctac ccatgagcct ctcccagccc tgcctgcccg tgcctagcgt gagcctgacc 1860
ctcatcctgc ctcacctcta cctgggctcg cagaaagacg ttctgaacaa ggatctgacg 1920
acacagaatg gaataagcta cgctctcaat gccagcaact ccacgttcga agcttgtgac 1980
cctcagagga caggcactgt ggctgtggcc caggtgctgg cctacctgga ggctgtgaca 2040
ggccagggcc cccaggatgc acgcctccaa acattggcca acagcctgga cccaatggg 2100
gagggcccta aggccactgt ggacttggac actttcctgg ttgtcatgcg tgactggatt 2160
gctgcctgtc aactacatgg gggattagag ctggaagagg agaccgcctt ccaggagacc 2220
ctgacctccc agcaactgcc atctggatgc ccagaagctg aggagccagc caacctggag 2280
agcttcggag gcgaagaccc cagacccgag ctacaagcca cagctgacct gctgagcagc 2340

ctggaggacc tggagctcag caaccgacgt ctggttgggg agaatgccaa actgcagcgg 2400
agcatggaga cagctgagga ggggtcagca cgccttgggg aggagatctt ggctctgcgt 2460
aagcagcttc acagcaccca gcaggccctg cagtttgcca aggccatgga tgaggagctg 2520
gaggacctga agactctggc caggagcctg gaggaacaga atcgcagcct tctggcccaa 2580
gcccggcagg cggaaaagga gcagcagcat ctggtggctg agatggagac tctgcaggag 2640
gagaacggga agctgcttgc cgagcgggat ggagtgaaaa agagaagtca ggagctggcc 2700
atggagaagg acactttgaa gcggcagctc tttgagtgtg aacacctcat ttgccaaaga 2760
gacaccatcc tctctgagcg cactcgcgat gtggagagcc tggcccagac cctggaagaa 2820
tacagagtga cgacgcagga actgaggctg gagatttcac gcctggagga gcagctgagt 2880
cagacctatg aggggcccga tgagctacct gaaggggccc agctgagaag agtgggctgg 2940
accgagctgc taccctcatc gctgggcttg gagatcgagg ccattcgaca ggaagtggca 3000
actgctgac tctccaacc tctgtgtggg gtgtggcagt gggaggaagt catccatgag 3060
accagtgagg aaactgagtt tccatctgaa gcccagctg ggggacagag aaacttccag 3120
ggagagccag cgcaccctga agaaggaagg aaggagccat ccatgtggtt gaccagaaga 3180
gaggaagagg aggatgcaga gagccaggtc acggctgac tccctgtccc tctaggagcc 3240
cctcgccctg gagacatccc agaaaaccct ccagagagac ctgcgcggcg ggaactccag 3300
caagccctgg tgcctgtgat gaaaaagctg gtcccagtca ggaggagggc ctggggccag 3360
ctctgcctgc cccacagcg gctcagagtc actcgacatc cactgatccc agctcctgtc 3420
ctgggcctgc tgctgtgct gctgtctct gtccctgctgc ttggcccgtc cccacctccc 3480
acctggcccc acctccagct ctgctacctc cagccccctc cagtgtgaga ggctctactt 3540
gcccctcaga gcagtgtcta gctcaataaa tcccctggcc ctctctccac tgggateccc 3600
attgttagtc cactgttgcg caggcttacc ctagatagag tacaggggat ccacatccct 3660
gtatttttat gtgaattctc ctagtttttt aatgctgaca tttcttaaca atagcaaaac 3720
tccccagta atggattaag cactaaggat tattccctca caaaacaagc ctggcgaggg 3780
cagctgtggg cacacagcta agtctcgggt gccttgggggt cagggcctca gtgattctcc 3840
tgtcccctcc ctcatgtca ggagttggca gttgtagctt cctacatcac atctgcggga 3900
aacggaaatt tcttcttcc tttttataaa gagaggcagt agcctcagtg tgcagtgggt 3960
agattcaaat catattcata ataaaagaga agcagttgcc tgcccag 4007

<210> 1436

<211> 3825

<212> DNA

<213> Homo sapiens

<400> 1436

aagttaaagc ataccaccag agaaaattac cttcattaaa agaatacagg aaagaaggaa	60
agaaggataa taagactaca aagcaaccag aaaacaagta accaaacggc aggagtgagt	120
ccctacttat caacaacagt gattgtaaat tgaccatact ctccaatcaa aagacacaga	180
gtggctgaat ggttgaaaaa acaagatcca atcatctgtt tcctacaaga aacacacttc	240
atcttttaaag gtacatgtag actaaaaata aaaggatggc aaaagatatt ccatgccaat	300
ggaaaaccca aaaaagagca ggaatagcta tacttatatc agacaaagta gagttcaaga	360
caaaaatggt aagaacagac aaagaaggtc attatgtaat gatacagggg tcaattcagc	420
aagaggatat aatgattgta aatatagata cacccaacac tggaacattc agatatataa	480
aacaaatatt attagagcta aaaagagaaa tagagctcaa tacaataata gctggagact	540
tcaacatctc gctttcagca ctggacagat ctcccagaca gaaaatcaac aaatatggga	600
cataatctgc actatagaac aaatagatat ttacaggatc taatagatat ttacagaaca	660
tttcacccaa cagctacaga atatacatTT ttctcttcag cacatggatt attctctagg	720
atagaacata tgttaggtca cagaacaagt cttaaaagat tcgaaaaaat tgaataaaca	780
ccaagcatgt tccctgacca gaatggaata aaactagtat gtcaacaacg aaaggaattt	840
tggaaaccat acaaacacat ggaaattaaa caatgtgctc ctgaattacc agtggctcga	900
ggaagaaatt aagaaggaaa ttgaaacctt tcttgaaata aaagataatg gaaacacaac	960
atactaaaat ctatgggcac agtgaaagca gtactaagag ggaaatttat acctatgtgc	1020
ctagttcaaa aagaagaaaa acttttaaata aatagcataa tgatgcatct taaagaacta	1080
gaaaagcaag agaaaactga accccaaatt agtagaagaa aaaaattata aagatcagag	1140
cagaaataaa tgaatttgaa aagaaaaaat aaaaaatatt aatggaaaca aaaagtgggt	1200
tttttttgaa aagatgaaca aatttgacaa agcttttagcc agattaacta agaaaaaaag	1260
agagaaagct caaataaata aaaccagaga tgaaaaagga gacattacaa ctgatactgc	1320

agaaattcag aggctcatta gaggctacta tgagccacta tatgaattgg aaaatctaga 1380
agaaatggat aaattcctag gcacataaaa cctaccaaga ctgaaccatg aagaaataca 1440
aaacctgaac acatcaataa caaataacaa gattgaagcc ctaataaaaa gtctcccagt 1500
aaagtcaagt ccatcatctg atagcttcat ggctgaattc tgccaaacat ttaaagaact 1560
aatacagtcc tactaaaact gtttcaaaaa ataaaggaag agagaatact tccaaactca 1620
ttatatgagg ccagtactac cctgatacca aaaccagaca aagatacatt aaaaaagaa 1680
aactacaggc taatatcact gaagaatatt gatgtaaaaa tcctcaaaaa aatactagca 1740
aaccaaattc atcatgacca aggggtatatt atcccaggga tggcaggatg gttcaagata 1800
tgcaaatcaa tcatcagatt gatatatcat atcaacagaa tgaggaacaa aaaacatatg 1860
atcattttta ttgatgctaa aaaagcattt cataaagttc aacatccctt cctcaaaaac 1920
ctgggtagag agggaacata cttgaacata ataaaagcca tatacacag acccacagct 1980
agtattgcac tcaatgggaa aaaccgacag cctttcctct aagatctaaa aaaagacaag 2040
gatgttcact ttcactcactg ttattcaacg tagtactgaa agtcctaact aaagaaatta 2100
gacaagggaa agaaagaaag tgcactgaaa ctggaaagga agaagtcaca ttatcctggt 2160
ttgcagatga tacgctctta tatttggaag aacctgaaga ttccatctaa aaattattag 2220
aactgataag aaaattcagg aaagtttcag gatgtaaaat caacacacag aaatcagtag 2280
catgtctata tgccaacagc aaaaaagaa aggaatcaga aaaagaaatc aagaaagtaa 2340
tcccatgtac aatagctaaa attagatac ctaggaataa acttaaccaa agaaatgaaa 2400
gatgtctgca atgaaaactt taaaaagcta atgaaataaa ttgaggagga caccaaaaaa 2460
aatgaaaaga tattctatgt tcatggatta gaagaatcaa tatttttaaa atgcccatac 2520
taccxaaagc aacctacaga tttaatgcaa tccctatcaa cataccaatg gcattcttca 2580
tggaacagg ataactaatc ataaaattta tatggaatca aaaaagacc agaatagtca 2640
aagttatcct aagccaaaag aacaaaactt gagaaatcac attacctgac ttcagataat 2700
accacagata ataactacag agctgtggta accaaaacag catggttttt gccataaaag 2760
cggatacaca gattgatgga acagtataga gaacacagga agaaattcac acacctacag 2820
tgaactcatt ttcaacaaag ttaccaagaa cttatcttgg ggaaaggaca gtatcttcaa 2880
taaattggagc taggaaaact ggatatccat atgcagaaga ataaaaatag acccctatgt 2940
ctcaccatat acaaaagtaa aatcaaaatg gattaaagac ttaaacttaa gacctcaaac 3000
tatgaaacta ccacaagaaa acatggggga aactctccag gacattgggt tgagcaaaaa 3060

atttcttgag taatacccca caggcatagg caaccaaagc aaaaatggac atatgggac 3120
 acatcaagtt aaaaagcttc tgcacaacaa aggatactgt caacgaagtg aagggacaac 3180
 ccacagaatg agaaaaaata tttgcaagct atctatctga caatggattc ataactatag 3240
 gtaaaaatct agtaatctga tcaagaaatg ggcaaaagat ttgaacattt ctcaaaagaa 3300
 gacatacata tggcaaagag gcatatgaaa aagtactcca catcattgat cttcagagaa 3360
 gtgcaaatca aaactacaat gagatattat ctcaccccag ttacaatggc ttctatccaa 3420
 aagtcagaca ataacaaatg ctggagagga tgtggagaag aaggaaacctt tgtacactgt 3480
 tggcaggaat gtaaattagt acaaccagta tggaggagag ttgtaggctc tactgtccta 3540
 acctgcaatc ccagtttctt ctaattgctt ttctttagt tctaggatgc tgccaagatc 3600
 attcagaggt gggatgacca cacagcctgg acatgagtca ttgcttcccc ctattcgcta 3660
 agttctattc ttgagtcaaa cctttgactt tatcacttga aagtaacttt agaattacaa 3720
 tttcacttta tgtctttgcc tttacaaga aggaagtcta gcatttttaa agtaactatc 3780
 attgaagagc ccccatggag ccctgaaagt ggacctggtt ctggt 3825

<210> 1437

<211> 3477

<212> DNA

<213> Homo sapiens

<400> 1437

attgagccaa aagtattgaa aataattgct atagttttct aatgcccaag tttttttgt 60
 ttgtttgaga cggagtttcg ttcttgttgc ccaggctgaa gtgcaatggc ccgatctcgg 120
 ctcactgcaa cctccgcctc ctgggttcaa gcgattctcc tgcctcagcc tcctgagtag 180
 ctgggattac aggcattgac cactatgccc agctaatttt tctattttta gtagagatgg 240
 ggttttctca tgttggccag gctagtctcg aactcccaac ctcaggtgat cagcccgccc 300
 cggcccccca aggttctggg attacaggtg tgagccacca cgcccagggtt tttttttttt 360
 tttttttaga tggagtttcc ctcttgttgc ccaggctgga gtgcagtggc acaatcttga 420
 ctcaccgcaa cctccagcct ctgcctcccg ggttcaagca gttgtcctgc ctcagcctcc 480

caagtagctg ggattatagg cgtgcactgc cacacctggc tatttttttt ttttttttta 540
aagtagcgac ggaatttctc catgttgggt aggctgaact cctgacctca ggtaattcgc 600
cctcctcagc ttcccaaaat actggaatta caggtgtgag ccactgtacc tggcctctaa 660
tacccaagtt ttaaggaac aatatttcca attttggggg ggcacacaca tctaattttt 720
aaaatcttcc cagttaggga atggatatatt aaacttttct gttgtaattt caaaaacagt 780
gtgttttagta gtatgtagta gaataaatac attgtactag taatcagatt ctggctcatt 840
tttcttttat cagatcactg aactcttgtg ctgtagttcc ccaactgaaa atgaaaatac 900
tggatgtgtt agtttctgag gttcttgtta taaaagtgtg gttattctag gttttattgg 960
catttctcta atgctgataa aagattaaga taattttgct tgtaatacta ttcataataa 1020
aatagaattc atttcaatat aaaatgagtt agacttggat tctaaagggg cttagtcagt 1080
gaatgactaa aacaaccttt atataagatg gtctcatgta gcaatcaatt tcaagatcca 1140
ttctctagga ggctggggag gggcggggga gggaaacaac caccaaaaaa taacattgtc 1200
tgacaacttt gagctaaaat ccaggatctt aatttgagat taatgtaaga aatctgtcag 1260
gtatttttaa aaagtaactc atcactattt aggagttgac ttttctgtt gtagctttca 1320
ttgaaggact attgttttag tcattctctc ctaaattcct tttcctgaga ctaaaagatt 1380
gagctcatac ctttgcataa cgatctggag agtattttaa acttggcatg ttcaaactg 1440
gcagactcga ttaatatgtg gacaaactag cacattagaa cattttttta gttccaagcc 1500
ataaatgttt taaatgaaca tgggcatgta taaaattaat acttaagcct tcaaatagca 1560
cagactttca aaatgcctgt tgccttgggt gactgatttt cagtgaggct ctcgcttacc 1620
ctacacattt cttcctctgc gtgaagcagt gccaggcaca gagtcaggag agggtttgct 1680
cctttggcgc tctactacc tctgctttcg gcagagaaaa ggctgctgtt ttacttctta 1740
aactcctacc atatggaaag cttctaataa taaactttgg atttgtattg gacttctaaa 1800
tttgtaacct tctttatcca tgactaaagc caatgtaaat accttagct actctacata 1860
caaagctgtg gcaccgtttt agtaagaaag gtcaccaacc ataatatita aattatcaac 1920
tgaattagtt tacctttcat ttatgtctta gttggcatgg ataaggacct gggtgtgttg 1980
tcaagcaaaa actagtgggt ggtttttagt gaatccactt taattttttg ttcatgaatt 2040
gttggtgtaa ttacgtagca gacgtattcg tgagaatgta gaagtacact agcttttgac 2100
acaacagatt gtttaaattg atcgttattc actttgtaaa ttctggtcag ttgggccttc 2160
tatcagcaag tatataatga gcacctgtta cttgccaggc actgctaggt cttgcgagat 2220

acaaagtgtg ataaaagatg attcttgttc agacaagtaa gagagaaagg aagaagaaaa 2280
cctggggaca accaaatggt ttaactgtgt taacagagaa atagatgcta tgagagcatg 2340
agagcatgga ggagagatga gtagagtaat agttggcttt ttttttttga gacagagtct 2400
cactctgttg cctaggctgc tggagtgcag tgggtgtgac tcggctcatt gcaacctcca 2460
cctcccaggt tcaagtgatt ctcatgcctc agcctcccga gtagctggga ttacaggtgt 2520
gtaccaccac tccgagctat ttttttgttg ttgttgtttt tgagatggag tctcgctctg 2580
ttaccacaggc tagagtgcag cagtgtgac tgggtcact gcagcttctg cctctcgggt 2640
tcaaggattc ttgtgcgtca tcttccgagt acctgggact acaggtacgt gccaccacgc 2700
ccagctaatt tttgtatttt gtatttagta cggacagggt ttcaccatgt tggccaggct 2760
gttcttgaac tcttgacctc aagtgatccg cccgccttgg cctcccaaag tgctgggatt 2820
acaggcgtga gtcactgcgc ccagcctaatt ttttgcattt ttagtagaga tggggccagg 2880
ctggtcttga actcctggcc tcaagtgatc ctcccaccct ggctcctcca agtgctggcc 2940
ttttcatagg tgttcagttt gagggatatat gtaaccatat ctgttgaggt ggactgctta 3000
aaaaccacaa ttcattttatt taattgggaa ttgtttctct cccctccttt tttgataaca 3060
gtcaaacctc taaatttatt ttcttttatt tttctttctt cttccaactg agctacggca 3120
ctcagcctca gttgtatctt aaataataaa aattatttac aacagaggct attttttttt 3180
gagtgccagg attaatgtta cccgccaggg aaaagagaac attctaggta gtaggagaaa 3240
cagtagaact atcaaagaca gtatgttcta ggaggaagtt tgggtgtgggt aatggggagg 3300
aggagggaca ttagtggcca gagagcaaag gcttgtgaga ctgggtggga tcagattatg 3360
aaaggcttca gggccaggga gatgggagaa ttatgtgac ccaggagggt gaggctgcag 3420
tgagctgtga tcatgccact gcactctagc ctgggcaaca gtagtagacc ttatctc 3477

<210> 1438

<211> 3684

<212> DNA

<213> Homo sapiens

<400> 1438

tgtcttttcc ttcaagaagt cccacccagt gggggatagt gacctcactc tttgtttact 60
tcctgtggca aacctggtgg taaggagggc cagcttgggg aggggagccc gggagcaggg 120
gtgcaaatgg aggcccacac gctacatgtc tatttaaaac atatacatta agctaactag 180
tttttataaa tgcataaaat atgttctgtc ctctacttg gataaatata cctggaaggt 240
cagtttctaa tttagaattc ccacagttct taaccgcatt ccagctgaca cttttggaac 300
ccccattctg taagttcagc ttctgttcat gaccctccag atgcctgtcc tttggccacc 360
cctaggatcc aagggtgcac agtcagtggc acagtctacc cttgggaaaa cagaccagg 420
gaagaggctt atgcaagcct cattaaatcc agaaaatgga tttgggggtca tttgggcaag 480
gattacctgg gtcccagcta cttggagtgt ggtctggaac tgggaggggc aggatgcagg 540
ctctaattaa gccacttccg gaaccacag gctgcttgcc cggtggtagg ggcagctgga 600
gggtggccag agtgcagccc ccagagcag gggcccaggg aagtcctggg aggaggcagc 660
cttgagttgg aaggcagaca gcaatcacct gtgtggagga ggaactagga cactcttctc 720
ggcagacagc agcatgtgca gagaccaga gtctagaaaa aacagatctg gagaacagca 780
aggaggtgta aatggtataa atggccaagg tgcagtgtt cttggggact gccaggtgac 840
aggcacagaa ggaagcaagg gtacattgtg aagggtttg atgccacttt agagcactgg 900
ttcctgtcct aaagcctgtg gagcagtgt gaggattcta agcacaggag tgacagcata 960
agatagctca ttacaaaga ccaccccggc agatggatta gatccagtag ctcagttagg 1020
tgggtatgga agtctatgtg aggaatctag gagatctcag taaaataatt cagtgcaga 1080
ggatgctcag gaaagaaaag gtgactgagg aggaacaaga agtccaggcc tagaagcagc 1140
accatccact agaatttgct gcagcgaagg agggcttctg tggctgcact gtctagcgtg 1200
ggagccatga gactgtgtgg ctgtcgagca tttagaaggt gaccagttag actgtgggac 1260
tgaattttaa acctcattta aatcgaaata gccacaagt gctagtggct atcacgttag 1320
tgcagctcta gagcaatttc caggtttctg gcttggacag cttatgcggt catgaggact 1380
tccacaagga cagcagtcct aggtggggct ggttttatat gtgttgagtt ggggtacttt 1440
ggaacagcca ccagcctgg cctccccttg ggcattctgc tcccgtgtgg cctgctgcag 1500
cgacagccca ggctgtggca ctgcaggac tgcctctcag acctcatcgg atccacctgg 1560
gcatggcaga cggctgggct tcaaagcagg ttcatctgac tgctccttcc ctctagggtg 1620
aagactctac ggtaaaagga atttgatgcc ttggaaaggg agagcggaac ctgtgagccc 1680
tgctttccag ccatggcgaa agcgggtact tttgtgcaac ccctctcctt tcacgttggc 1740

ctggctaggg cggagctgcc acgccagtga ccagcgtttc tttgggaaaa ttggacttac 1800
tccacttcca ccttttccac tcttcaaagt atcacatttg catattggga acagtgtatt 1860
tgtgaagaga ctctcaggcc ttccagggaac cccccccccc accacccgct acagcccagg 1920
tcctggttct gtcctcccca gatgctgcta gagaaactga acggcacagt gccctgcctg 1980
ttggatacca gcaccatccc cgctgaggag ctgaccatga gcccttcgcg ctcagtggcc 2040
aactctggcc tgagtacag cctgaccacc agcacccccc ggccctccaa cggtgactcg 2100
ccctcccacc cctaccaccg aaccttctcc ccccacttcc accactttgt ggagcagtgc 2160
cttcagcgca acccgatgc caggtatccc tgctggcctg ggccctgggct tcgggagagc 2220
agaggggtgt caggagggtg aggccagggt gtgaagggaac ttacctcca aaggttctgc 2280
aggggaatct ggagctacac acaggaggga tcagctcctg ggtgtgtcag aggccagcct 2340
ggggagctct ggccactgct tcccatgagc tgagggagag ggagagggga cccgaggctg 2400
aggcataagt ggcaggattt cgggaagctg gggacacggc agtgatgctg cggctctctcc 2460
tcccccttcc ctccaggccc agtgccagca cctcctgaa ccactcttcc ttcaagcagg 2520
tatcgtagcc ccttcgttct ggttcttggt ctagttctgg ttctaacaac tcacaatccc 2580
tttagcttcc tctcccctcc ctttgaatga gagaaactac cccgcttccg aagcccctga 2640
aagacactgc tccttctct catggagtgt gctccgacag cccgtctgcc accaggccat 2700
ggttccttgc cccatggtgt cctgggaccc agagcaacag gatctgtcac ccacctctct 2760
cttctcccc agatcaagcg acgtgcctca gaggctttgc ccgaattgct tcgtcctgtc 2820
acccccatca ccaattttga gggcagccag tctcaggacc acagtggaat ctttggcctg 2880
gtaacaaacc tggaagagct ggaggtggac gattgggagt tctgagcctc tgcaaactgt 2940
gcgcattctc cagccaggga tgcagaggcc acccagaggc cttcctgag ggccggccac 3000
attcccgccc tcctgggcag attgggtaga aaggacattc ttccaggaaa gttgactgct 3060
gactgattgg gaaagaaaat cctggagaga tacttactg ctccaaggct tttgagacac 3120
aagggaatct caacaaccag ggatcaggag ggtccaaagc cgacattccc agtcctgtga 3180
gctcaggtga cctcctccgc agaagagaga tgctgctctg gccctgggag ctgaattcca 3240
agcccagggt ttggctcctt aaacccgagg accgccacct cttcccagtg cttgcgacca 3300
gcctcattct atttaacttt gctctcagat gcctcagatg ctataggtca gtgaaagggc 3360
aagtagtaag ctgcctgcct cccttccctc agacctctcc ctcataattc cagagaaggg 3420
catttctgtc tttttaagca cagactaagg ctggaacagt ccctccttat ccctcttctg 3480

gcttgggccc tgacacctaa gtctttccca cggtttatgt gtgtgcctca ttcctttccc 3540
accaagaatc catcttagcg cctcctgcca gctgccctgg tgctttctcc aagggccatc 3600
agtgtcttgc ctagcttgag ggcttaagtc cttatgctgt gttagtttcg ttgtcagaac 3660
aaattaaaat tttcagagac gctg 3684

<210> 1439

<211> 3143

<212> DNA

<213> Homo sapiens

<400> 1439

acttcaccct ccgagtggcc gctgtgcagg ctgggtggtc agagaagcag agggctgagg 60
cccagaatgg gtttgcattg tctgtttctg cagaaagtga ggcagcacc catccttccc 120
aaccccaata cctagaatgg gggccagagt agggagggaa tgtgtggatc tgcttctgag 180
atgggtctca cccagcccc caaagcctgg acctgagtcc ccaggagaca ggggctacag 240
gggaatctca ccagggaatg gccccttgtg ggggccccac agcaggggct gggggcaaag 300
tctccccttc taccagacac aagcacaggc acactcctgg gggctgcctg gccaggcccc 360
aggatcatgcc gagcacaggg tgctgctggg ggccacgcct ctgcttagct tctgaggtgg 420
gggcagtggg ctgtgcctcc tcaaggactg aggtgagtgg ggacacaggg ccaggtcaga 480
agcacatcca gacacacagc tgcttcagta acgaaacca cagtcagcca ggaagtaaac 540
aaattacagg ctgcactttg ttagctctgg ggaacatgaa cgtgagcaga cactactgat 600
ttctcatcaa acaaacagaa ggcggcgtca taatccagag acccactgcc aggaggggct 660
gcagcatgtg ccctgggctg ctgatctgct ggggtgcacc tgtctttggg ggccttacac 720
cattcgtcca taattctagc ctctgctcag tgggtgattt gttttccctc ttacaagctg 780
ggctgggtaa ggctaaagcc tcctgcaagg cagtggctca ggtgtcctta ggagacatac 840
caggtcagg cccaggctga acttctgac aaccttaaga aggcaaaggc caggctcaga 900
gaagtccaac agctcacccg aagctgctct ggatttgctg gaggcagaga agcagtgcct 960
ccctccctgc gtgagtcaag gctgacgtgg acagtgagac ctccgtcccc actgcgagca 1020

gcggggggca tgccaaggtc ctatctgcct gactagggag cctcaccag ctgttgctgg 1080
ctgcttggtg gggactcagg ctgcaagctg ctgagaatat tatttagcag cagcaggaat 1140
aataatacaa taataatatt aatgatagta acaatagtaa tgatgacagt gataatagca 1200
tttatagaac accatacgtg aagagcctta catgcatatt gtcatttagt ccttactgga 1260
accctatgag gctggtacca ttatttatcc ccatttcaca gaagggaana ctggagctta 1320
gagcagtcaa ggttactaga ctagtaactt tccaaggttc tagttagtaa gtggcagacc 1380
ccaggctcat gcccttcctt aggaagctgt gccgcctcct tccctcaggt aggggaggtg 1440
tgcgtgtgtt ttgtgtgttt gtacacatcg ggcttggacc cctgcggggc tgggtgctgcc 1500
ctgctccctc gtgtaggggg ttctgagaag cactgggccc tgcctatttg cgggctactg 1560
actcaaccac gagcagcaag tgtttctctg gagataatga ggggccattc atctctggtt 1620
gcaccacaaa ttaccctaat tgctaacctt attgtgaaaa gtagaaatgc aattgagttg 1680
gtgctggagg catgtttgag ggagaggaag accactcaaa gtaatttaat taactgatgg 1740
caagtacatt aagtggagtt ttgcctctgc ttttatttct gatgtcttct agtggagcgc 1800
caagtaatgc acatgaaatg ctcccacaga cacaggtgga gctgtcccag tactgatcaa 1860
tctttcctgg ccaaactgtt ttaaaagctg gcaactgcacc ttgtgagcag gtacagtaga 1920
ggacatcaca ctacacaaac tgcaccccaa cacagtccag tctttacaga taggacactg 1980
ctctttcttg ctaagttctc agacaagccc tggccatcgc aggcccagaa aatgaagggt 2040
tctgcccac cagcatctgt ccagcaagca cccaccagga ttgtgctgca ttgacattca 2100
aaattgtata ggatactggc tatgttcacc atgggtgggaa atcacaagaa aacaatcctg 2160
tccagtgtga caaggctagg ggaagggcac tccttggcag ctctgcccag ggtagaacct 2220
ccagagtggc cccctcttct catctgcttc ccccatgacc cccagggtgt agctgaaggg 2280
gcctagagag taggagagga ctaactttgg tggttcctgc agcatttcat gctgggtctc 2340
tctccccaca agtctcagag ttggaaggga cctccaaggt cactgggttt agctgcctc 2400
ttgtggctag cagcattgct gaccacagtc cctgcctgag cttgcatatg ccccttggga 2460
taaggagctc agcgcctcct gtggcggtc tgtctccatg gtggggcagg tttgatggct 2520
ggaatggggg tccatctaag gagcccaaat tgatctcctt ttgaggtgca ccttgtgcta 2580
gtccaactca gggggtcaca cagcccaggt cagctccctt tgcccagcc cctacccac 2640
caccttcgag atgttagcag gaactgacca ttcatcccat gggctcttct tttctgggca 2700
agcatccac tgtggaccag ctgtcctgtc ctgagccaac aaggctaagg ctgccctctc 2760

ttctgcatga aaattatatt ccagttactg taacctaaga cccgtcagct gtcctggcag 2820
 ctactacat ggggtgacatc actctgtctt ctcacatgaa cttctgggaa gccacatcac 2880
 ctcttgtgcc aaacctggac caataaatat ccttgaatta tgccacttct ttaagtctaa 2940
 tagaaggga gatttgctaa cgtttttctt atagattaat tcattgagga tcggcaggtt 3000
 aagaaattac tcaaagtcac aaagctgacg tgggtgatgc tgggaccca acggaggctg 3060
 cctggttcct cagggcacag acgtaccccc tgatggccac actaggctgc atgagctcag 3120
 ttgctttctt cttccacaca gct 3143

<210> 1440

<211> 4121

<212> DNA

<213> Homo sapiens

<400> 1440

agtgtgtgtc aaaaatatat gatggaccac atggatgcct ccaactgttt aggtatctat 60
 tattttgcaa agcagattgg agctgaagat ttatctgac gatcaaagaa atatttatat 120
 cagcactttg ccgaggtatc atgatagagg aaaccagttt tgggaaaagt tatgcacagc 180
 tgaatttcga gaactctatg ctctggatgg atcttcctga tgaagaacct gatcgattaa 240
 gcaacaaact gttgcagtat gaccccagcc aagatcaatg gagtgtgcgg gcacccatga 300
 agtactctaa gtaccgattc agtacagctg tagtcaacag tgagatttat gttttgggtg 360
 gcattggctg ttaggtcaa gacaagggcc aggttcgaaa atgccttgac gtggtggaga 420
 tctacaacct agatggggac ttttggcgag agggccctcc catgccaagt cccctcctct 480
 cactccgcac caattccacc aatgcagggg cagtggatgg gaaactctat gtctgcgggg 540
 gattccatgg agcagatcgc catgaggtta tctcaaaga aatattggaa ctggacccat 600
 gggaaaacca gtggaatgtt gtagccatca acgtctcat gcatgacagc tatgatgtct 660
 gcctagtagc caggtatgaat ccccgagacc tcatcccccc gccttcagat ttggtggaag 720
 aaggcaatga gcactaaggt gaccttgctg gaggacctcc tgctgttctg caaacaaggc 780
 cttcagaacg gagagggcc acagcatctc tgtcatgcca gtcattgtgca ctgcatgcgt 840

agtggcctgt gtgtgaagaa gcagtgtgtg ctgggcactg ggtggggagc atggggagtc 900
tcccttcagg gacttcccag cctgataggg taaataagac actacaaaga agaggtgatg 960
acggccacag gaggggcaca gggccacagg agagcagcag agggagggtc tactctgct 1020
ggggacccat gaacagcact gccaaaggagc agacctttta ttgggtcccc aaaaggatga 1080
ggaggaagtg gtcccatggg tgcagtcaat gatgagttca tggaaacagc caagcatggg 1140
cccagagaca gaaagctcgt gcctgtctgc agtatcctgg ctgggccaga ttgcctgggg 1200
cacagggttt gtggtcaagg ctggaaaagt aggttgtagc tagatgacca acgcctgaaa 1260
gaatgaggag ttggacctgg tctgtaagcc agggaattgt ctcaaaatcg tgcattaagg 1320
gagacttctc tctgtgctct gtccagctt cagtcttata aacactgacc attctccttc 1380
agaatcccct tctactgaag caacgccacc cagcagcagg gctagctgta ctaccagccc 1440
ctaacaacca aggcactcaa gccagaccac agtggccaag aatcctgccc tgggctgact 1500
ctgtccggga cagggatgtg gggttctgca gcctgggtcca ctccggggct ggcagggagt 1560
gtcctggagt gggctgacct aggctgcctt tgcccacctc tcagacacat acaaccatct 1620
gcagggtagt cctggctgaa caggactcgc ccaagccacc caagccaggg acagagaagg 1680
ctctggctga ggacagggga agaagcatct cctccagctg ctgccaacct catggcccgg 1740
cctttgcaat aaagatggag ccaccactt cagcccacaa ttgagcataa tcagaagaca 1800
gtcactccca aaatatatgt tagaaataac atttaaatac cacatgggaa gtccgtctat 1860
cttacttccc gtctctaatt ctggaagcac agtggattca atgagggcat cttcatagct 1920
cttcttcagc aacttctcca aagagtttca cattgcacaa ggctcttttg gaagcaggag 1980
tggtcagtaa attcagaggg agacaaacct taagtagaga cagctttctt tggtgctgag 2040
ctgtgtgatt gtgatgaccg ctagcctgtg cccctagggt ccagctgccc accaggcagg 2100
acaggcaggc cttgccaaaa ctggagcctg ttggaaacct atttctgcca ccaaggagag 2160
ggaccaggag acccagcgta ggttggcccc aagtaggctc aactcgggag ggtgggggtc 2220
ccgcctttct cttcgactt gtgccccaaag tgcactcaca gtacctggca tgtgggtgac 2280
ctcttgggtg gccggcatgg ggcagtgttt ctcaatcaga gggcctgggc cccgagcacg 2340
tccaggaatc tgagttaaag tgagcttact ctttccccag tggatgatca tgatctgtgc 2400
attctttttc ttgctacaaa gatgttctc ctagctgtg tggttgctgt cggcgggcag 2460
ggttgaggac ggcctccaca gggcctccac ttccctccat tcctcttcac atagtactc 2520
cacctgctcc acctgcttga aaagtccaga aagctgccgc gtctccctgg ctcaaggagg 2580

ccttgttggc atgtcatggc acatctccta gatgttttgg gttcaagatc tgggttccag 2640
ccccgctct gctacttagc taaccatgtg aacttgggca agatgacctt tctaaagcct 2700
catttccctc atatgcagag tgggaaggaa aatattaata catactttat agggttggta 2760
tgaggattaa gtgctgagca aagtgcctgt gaaatcctga aataataagc atgttttagc 2820
tgccattatt atcatcactg tcattatcat tgcagtcagc acttcccaaa gcaaggtgcc 2880
caaaacagac tcagtgtttt aggggaagtgg ggcagatgtg catatggctt gtgacggttc 2940
tttctttttt tttttttttt tgagacggag tctctctctc tcgccaggct ggagtgcagt 3000
gcagtggcac gatctcagcc cactgcaacc tccgcctccc aggttcaagt gattctcctg 3060
cctcagcctc ccaagtagct gggattacag gcgcccacca ccacaccag ctaatttttg 3120
tatttttagt agagacgggg ttccaccatg ttggccagga tggctcfaat ctcttgacct 3180
cgtgatctgc ccgcctcggc ctcccaaagt gctgggatta caggcatgag ccctgcacc 3240
tggttgagat ggttcttaat ttccataacc ctgttgcttg gctcctccag ttggcggtg 3300
agagttaagc aagggtttac tcggatctga ggccccgat gccctcaatg gacacattca 3360
ggaccctgtg gcagctcagc agaggcacct gagggtcacg ctaggtgaga ccatcgcccg 3420
cctgtgggag gcaagataag tgggtaaaca tcattcctgt ctaatgcgag gtctgggcag 3480
tgtcccagtg gaactttcca gagagtgcc aaggaggacc gagaaggggc atgacctctg 3540
ctggagccag gagggcagtg accaggagct ggcttagcac tgaagggaag caggcatcaa 3600
gggcaggatt tctcaaactt ctcttgagga atccccagg tcgaaaccgg tgcttcacag 3660
atttcagatg tctgatcttg atttttcttt gattccatac aacagattgc ttgcctgggt 3720
tagtgcttat ttaagtctt tgggtgcttct tgtctgactt ctgtatttgc aattaaaaac 3780
aacatgaccc tccccacctg cagccagata tcgttagaaa ttcaacttcg aaatatattc 3840
ctatcactcc tgttttact ttaatagaag gctgttcag tactgcatga tgggtcttta 3900
taaaacttct actatctgct aattcttatt tttgtgacag gattgtttga cactgagcaa 3960
ggaaacacaa taaggaagta atttggatgc taggctggca gaagcctgca gctgtcaacc 4020
acagcctgcc ccagtgtgtt caacacggtg gcattgttct ccctgacttc ataatgagca 4080
aatgtttcac atttgaactt aaggaataaa tttttactaa t 4121

<210> 1441

<211> 3384

<212> DNA

<213> Homo sapiens

<400> 1441

agaagctaag agccagcact tgttcaccat gtgtcattt cctgtctcta tgacaggctg	60
ccgtgctcca gtttgcaat gcccatccac ctgtgaaggg ctgagccaag ccctgggcac	120
gtggcttcat ctctgtgtc agttcaggca agaggaagag agaggaggaa gcttctagat	180
ccaagccaga ggaggtggat gcagcatctg ccgccacag ctttggggcc tggcccagcc	240
tccacctggc cgagacaccc aaccccgacc ccaccacat gggcgtgcag aagagcctga	300
gatggtgcac actgacccat ggcagagtta cagttagga acaatccgaa tgactgaatc	360
acagcaccac agtaatgatt ctgcaacact gaacttgact gtcccaagga aatcacaact	420
gccatctcaa gaaagcctgt ctgcagcaac cattccatgg tcctcaaagt cgtggccacc	480
ggagaggctg gtttcaattc gcccccaact ccggctggag agagttgagg aggaaggcag	540
cggcctgggc tgagtgggaa atgcctgcac tggagggttg gtggcccca tgctggatgg	600
aggcaggaac gggaggctcc tggaattgtc ctctcttctg ccagagaggg gaggcgggcc	660
gtcactgtgc agaagcccag ccagcaccga gaaggaagt ggtgcctgtg ggaccctgc	720
ctctctgcgg aggggcctgt ggaaatgcag cctgtgccct gggccagccc tgctcctagg	780
agggtcctgc tgccctattt gctctctctc cctccttctc ctctccactc ccaccttttt	840
ttctaggaac tttgaaccct cgttttcacc cagtcccatc gagaagccaa gtgctccctc	900
ctcaggccag agtcccagc tgcagacaca gggtcagccc ccagctgagc gaggagcggc	960
ttccatgccg gggcctgcct ctctgccgt ctccaccggt ccttcgcagc cgctccgatg	1020
ctctccacgg gtcctttgca gccgcgtcct ggccctgagg cggtgacaca gaagcccacg	1080
tccgtttcct ttctgcttgc ctgtttgtag gtgggaccag gcttcctgtc tgcccatccc	1140
cagaaggcaa agccttttagg tccccctct gctgactcag gcacaaaagg gttttttctt	1200
tcttagtttt ggaatctgag tggaagggcg catgctgtgg atcatattct ctttctagtc	1260
tctcggttgc tcacgtggga gtaagtagga gctgtgggac cttgtcctta agccattaaa	1320
gatgtggtga gttttattga gcctgctgcc caccctgtgg tatcttttgc tggtttgctt	1380
ctccacaagc agattccaga caaggatcag tgtctgtggg gtggtctcag gaacaccttg	1440

ttgggagtgg ggggtgaaaca gaagaggcaa gaatcccagg ctgggagcag gccctgcacg 1500
ggccactgag ctcagcccac tggggcgttg gggagtgggt gtgcttctgc cttcatgaca 1560
cctggggcct cgggggtctgg agcgagctca gggaggcccc acagagtgtg ggggctgcag 1620
gctggtcttt tcttcgctga ccgctgaggc tggggcctcg tcctgcttct gtgctgtgct 1680
ttgcgttgcc agagagaacc ccagcgggag tgattcagga ggcgggcgct gccacgtcct 1740
gactgcagag aacctcctgg agaaacagaa gccatgggtc ctgatgcccg agccggcgac 1800
gactctgagc aactgtgag cagagaacct cctggagaaa cagaggccat gggtcctgac 1860
gcctgagcca gcaacttact ctgagcacac tgtgaagggc ggctgtgaat ttttcttctt 1920
tctcaaacaa cgatgcaatc attgggatca cttgtcctcc tgggatgggt ttgtgtgaga 1980
ctgatgtctt ccgaaaaaca cagccccaag ggagtcgaga cgatgtacca ggtagaataa 2040
ggcacagggg agccgcttga caaatcagac gacggcagcc ggcctgcctg cccgggtgat 2100
gccagcgagt tgtgtttctg agagacgaag gaagccttcc ttccaggttt ccacgtggag 2160
cagtgcctct ctgctgggtt cctggcagca ggggatgcca ggctgcagtg gcagaatgtt 2220
gagctgcatg gccggcttcc actcatgcga agccagcagc aacccctcc tcagggtga 2280
caaccggagt gtcctccaga cactgccaga tgtcccctgg ggggaactgt ctttggctga 2340
gaatcactgc tttaggcgga tgatgatcgt ttaaattggac agtgctgttc ctggctccaa 2400
gcagtcagtt cctccctcc ctgtttactt acaaaacagc cgcaccccg ggattacgag 2460
tgagccagcg gaggtgtgac caaagagatg tcacagttcg cttttctttg tgatcaatac 2520
gtggaatgat ttaggggcct gtgttaaaat tacaaatctt ctatagaaga ttttggcagc 2580
aaaatatattt aaaagcctac gaaataaaca gagatggcac attcagaggc tccaaatcac 2640
agagcaagga actgcatcca cagtagcttt tgccttcctc ctctgccgct gttttgactc 2700
attgatcttt gggctctggtg gatTTTTTgt gttggggaga gaagaggga gaggcaggag 2760
ggccattctc atggcaagct gaggtctcag gggccgggct gggagttagg gggcgctggg 2820
gtcccacca ggtggcaggg ccaggcaggt catggcacct gctatggtcg tgctgaagtc 2880
ctggaggcaa caaccattgt tactttctaa cgataccaag agggaaagaa cacatccctt 2940
caacttttcc ttaaggagat ctgtaaggca ggttggaga atttgaagtc cttctgcctt 3000
cgcatgaaca aaaatgtgaa gggggTTTTT aaaactcaga tttgatcttt acagtaacca 3060
gatggatttt atttcaacat gccagagttt ccacatcacg tcaccactgc acttcaacgt 3120
gctgttcttg aggctgttta aagttcagcc ttggcacctg acatgtcgca tctgttttaa 3180

ctccaggcgt gggggctcct ggggaaacga cgacttctga tgcctgacca cccccaggct 3240
gacgccctct ctctgcca gggctgaggc tggacccagg gcacctcctt cgaatggcct 3300
ctctcttcct ccctaacaca gagcaatcaa cagctgtata aaataattgc ctaaaatca 3360
caaattaaaa gaaaatcagc agcc 3384

<210> 1442

<211> 4936

<212> DNA

<213> Homo sapiens

<400> 1442

tatataaagt ctttaggctg gacattatga tattgggggtt catctcctga ttgatgactg 60
taaagggtatt cacaaccagc tgtagtctt tagagcatta acaagtcctc caggacttgg 120
cagtaggtca ggagatcgcc ttgtatctaa gcaggggaaa atatttcttc ggttaaatat 180
atggattgac ctgtgaccac ctcaaaagg gaaaagcaat tctgggtggg atggacttca 240
caattacca acccagagga agagctttgg gccagggcag attgaagctg cttgtaattt 300
tagccaattg agttgaatat tctcttgggt cattccacaa gcccaaaaga ttcggtgtgg 360
taaacaccgc tgaaatgtct tagaataggc caaacattag caactcattt taatacttgt 420
ccagtaaaat gagttccctg atcactgtgg aacttgggtg aaactccata ggtagagata 480
atcttctcat gaagtacttt ggctactggc atcactgtgg cttgtcttca ggggaaagct 540
ttccccagt aaaactacat atctatcatg acaagaacat atttgtatca ctgagaaagg 600
gaaaattgga taaaatcagt agtccagttt tagaaaggcc cttttcgc attgaggactttg 660
cctagggtag cccttaagga cttccctgca ttgtataagg gtgaattttg cctaatatat 720
tagcttaaga agcaatcccc aacagcactg tttacacat tggatccttt ggtcagaact 780
ctaattggtg gggttatatat aaaagtaaaa gtgacccttg gtaaattttc tagaaggact 840
gaatgtctgt taggttttagc ccatagtgg gatctgggat tataggtaca gccttgtttt 900
gtctaatttt cttttcaag ttctgagcac ctttttgag atgttgtttc aagagatttt 960
tagaagaaac aggatgtaag gatggagcct ggattaagac aggcataaca gaaggggggt 1020

attgtttaag gctgcagact tagctgcact ctcagctaga tgtttgtctt tgctattttc 1080
ggtatgtcta aaggaattgc ctgaattttt aatcatggcc agagtcctag gaacttgaat 1140
ggcatcaaga aatgacaaaa tgtggtctct gtttctgatg agcagtccag aagaggttag 1200
aaatcctctg tttccggaga attccaaagt catgagcaac ccaaaaagcg tatctgctat 1260
ctgtgtaa at gtttgcagtt ttatctttgg ccaacaggca aactcgggta agagcatgga 1320
attctgcctg ttgggcagaa ggcctgattc aatagtttct gtcagggaaa caactgcaaa 1380
cctagcttaa tagaagccag tagggtctct gaaagaaggc ccatcaatct accagacaaa 1440
atcaggattg ggtaagggca tttcctttaa attcatatgg ggtgaaagaa gagtgtaaag 1500
gtaatgcagt catagagaat cttctggtga agacaaaaga ggggcagagt taaggagatt 1560
acaatggaaa ataggttggg aaagagaagt atttcatagg cagtcaatcg actggctgaa 1620
agatactgga tttggcgaga agtgagaagg gctttaactg agtgaggagc ataaacagtg 1680
agaggaaa at ccattactat tttctcggtg gcttttataa ggacagtgat tgtggcaact 1740
gcctttaaac atggtggtat ccccgatag acacaatcca gtttggcaat ctagtaacca 1800
attgggtaaa ttattacccc catgtggttc agttcaaact ccctcttgct catgaacaaa 1860
aaggggaaaa agggaggtca taaatagtgt cccaaattga ggggtgtatt gggcaaagga 1920
cagcttatct ttcagagact taaagtcctg ttcaccatcg gtagtccagg taaggaggtc 1980
aggagaagag gccttaatca gggatatata aggttgtgct agtaaagaaa aattagtgtt 2040
ctaagctctg caatagtcca tgagtcctag aaaggcccta agttttgtct tttcatagt 2100
ggaatgggga agaaaaatat gccttgaagg cagaaagggt tgatgttgag tccaagggg 2160
tcagcagatg tccaagaggt ttaattgtca gcaacactgt agtttatctt tagaatcttt 2220
atggccctta agacatagct ggtgaagtaa atggagagtg tcagtgagac aggtatttca 2280
taaggagaaa cataaaagca aatcaccaat gtattgcagt agagttgagc tatgtgagaa 2340
ggttatgtct tttttaaaaa aattatactt taagttctgg gatacattta cagaacatgc 2400
aggtttgtta cataggtata catatgccat ggtggtttgc tgcacccatc aacccatcat 2460
ctacattagg tatttctcct aatgctatcc ctaccctagt ccccatctc cccaacaggc 2520
cctgggtgtg aatattcccc tccctgtgtc catgtgttct cattgttcaa ctcccactta 2580
tgagtgagaa catgcagtgt ttggttttct gttcctgtgt tagtttgctg agaatgatgg 2640
ttccagctt catccatttc cctgcaaagg acatgaactc ctcccttttt tatggctgtt 2700
tagtattcca tggggtatat atgccacatt ttctttatcc agtctatcca gtctatctac 2760

tggtgggcat ttgggttggt tccaagtctt tgctattgtg aacaatgctg caataaacat 2820
acatatgcat gtggccttat agtagaataa ttataatcc ttgggtata tacctagtaa 2880
tgggatctct ggggtcaaatg gtatttctag ttctagatcc ttgaggaatc gccacactgt 2940
cttcacaaat ggttgaacta atttacactc ccaccaacag tgtaaaagca ttcctatttc 3000
tccacatcct ctccagcatc tgttgtttcc tgactttcta atgatcacca ttctaactgg 3060
tgtgagatgg tatcttaatg tggttttgat ttgcatttct ctaatgacca gtgatgatga 3120
gctttttttc atatgtttgg tggccgcata aatgtcttct ttgagaaat gtctgttcgt 3180
atcgagaagg ttatgtcttt taagtcagcc tgcaagatct gggaaaagta gatagggtt 3240
tcagtgcac cttcagggtg cactgttcag gtgaactgat ggcccttcca tgtgaaggca 3300
aaaagaaatg gactcttgag gtcaaccggg ttggtgaaaa aagtactata gtgatcaaca 3360
gcggaaaaat attggatgtt agaatgtata ttggataaga gggatatgtg agcaggcaca 3420
acaggatgca agggaataaa atgttatgaa tagctctaag atcctgggca agtctccatc 3480
cctttctatt agcttagaaa caggtagaag gggatatgta cagggtactg tataaatgga 3540
ctaataagtc ccttgaaaat gaaattactg acaatagggt gtataccagc taaagcctca 3600
tggtggaggg gatattattt tatgttcagt agaggtttgt taggatctat ttgtgtagaa 3660
atgggtgggtg ctgactggat cgggctgaca ttcgtattga ttatttcca aagggtttca 3720
aacagttact ttagagttgg atgtccagga tcaactggat gactggagac taataagggg 3780
aatacatggc tgaggtcaga ggctgaagcc tcaggcaagg aaacttttaa aacaatgtaa 3840
aagaaaaaca agcttggtgt ttttcaagaa agtcccttcc tattaggtgt attgtggcaa 3900
aatggagaag tgaaaagctg caatgccagt aagaggccct agttggtaag aaactagttc 3960
agacttgaag atagtcttag attggttagt gactcagcca ttggaatagc ttggtcactc 4020
tggttggttg gattttaaaa ggagtcaagg ttaagcacag atgcagtatc tattagggtc 4080
tgactattc tgttgtaat ttttaagata aacctctccc aatcaactga ctgaaaggag 4140
aggaaaaatc ccccatgttt ccctgaagta cccctagttc tgatcaataa gtatttctct 4200
tattgtttct gcagaagggg gtttctttac cttattgggt tccttctgaa gccctcattt 4260
atatttttta cagtctcatt tcaaatgcca gaaaaagcaa attatactc ttgcaactga 4320
cgaaactaat ttctaactat taaatggagt ttgctgatct gggagagact ttatgagttg 4380
ttgaatatgc aaggccatga gtttatctgt ctttcttgcc attctagtgc cttggtggct 4440
ttagcctctt ttttcttttc taggatttta gagaagcgat tggccaaaga agctatatca 4500

tagggtctct tagaaggcca attgggatca tattgcttaa gcagggtgct aagggtttta 4560
 acttacttga gggaaagtga gttaaaaaag atttataata tcatcagtta gatctttgat 4620
 accagaatit ttagaaagc cttttgaatc ggccgggagc ggtcactcac acctataatc 4680
 ccagcacttt gggaggccaa ggtgggtgga tcacctgagg tcaggagctt gagagcagcc 4740
 tggccaacat ggtgaaacc cttctctact aaaaaatacc aaaaaagtta gccagggtgtg 4800
 gtggtattca cctgtaatcc cagctaccca ggaggctgag actggagaac cacttgaacc 4860
 caggaggcgg aggttgcagt gagccaagat tgtaccactc cactccagcc tgggcaacag 4920
 agcgagactc cgtctc 4936

<210> 1443

<211> 3375

<212> DNA

<213> Homo sapiens

<400> 1443

tttccgccgc ggggtggaaga agatggcgctc ggggtgggtgt ggctgtagcg cttcggagag 60
 actgcctccg cccttccccg gcctggagcc ggagtccgag ggggcggccg ggggatcaga 120
 acccgaggct ggggacagcg acaccgaggg ggaggacatt ttcaccggcg ccgcggtggt 180
 cagtaaacad cagtctccaa agataactac atcccttctt cccatcaaca atggctccaa 240
 agaaaatggg atccatgaag aacaagacca agagccacag gatctctttg cagatgccac 300
 agtggagcta tccttggaac gcacacaaaa taatcagaag aaggtagtag ccaaaacact 360
 catttctctt cctcctcagg aagccacaaa ttcttcgaag cccagccaa cctatgagga 420
 gctagaggaa gaagaacagg aggatcaatt tgatttgaca gtcggtataa ctgacctga 480
 gaagataggg gatggtatga atgcataatg agcctacaaa gttacaacac agacaagctt 540
 accattgttc agaagcaaac agtttgcagt aaaaagaaga tttagtact ttctgggtct 600
 ttatgagaag ctttccgaga agcactctca gaatggcttc attgtccctc ccccccgga 660
 gaagagcctc atagggatga caaaagtga agttgggaag gaagattctt cttctgcaga 720
 atttcttgaa aaacggaggg ccgctttaga aaggtagctt cagaggattg taaatcatcc 780

taccatgtta caggaccctg acgtcagaga gttcttggaa aaagaagagc tgccacgtgc 840
cgtgggtacc cagacattga gtggtgctgg tctcctcaag atgttcaaca aagccacaga 900
tgccgtcagc aaaatgacca tcaagatgaa tgaatcagac atttggtttg aggagaagct 960
ccaggaggta gagtgtgagg agcagcgctt acggaaactg catgctgttg tagaaactct 1020
agtcaaccat aggaaagagc tagcgctgaa cacagcccag tttgcaaaga gtctagccat 1080
gcttgggagc tctgaggaca acacggcatt gtcacgggca ctctcccagc tggctgaggt 1140
ggaagaaaaa attgagcagc tccaccagga acaggccaac aatgacttct tcctccttgc 1200
tgagctcctg agtgactaca ttgcctcct ggccatagtc cgcgctgcct tcgaccagcg 1260
catgaagaca tggcagcgct ggcaggatgc ccaagccaca ctgcagaaga agcgggaggc 1320
cgaggctcgg ctgctgtggg ccaacaagcc tgataagctg cagcaggcca aggacgagat 1380
cctcgagtgg gagtctcggg tgactcaata tgaaagggac ttcgagagga tttcaacagt 1440
ggtccgaaaa gaagtgatac ggtttgagaa agagaaatcc aaggacttca agaaccacgt 1500
gatcaagtac cttgagacac tcctttgctc acagcagcag gctggggagc agttgggaat 1560
caggtctgga atactcctaa ccaagaagtt gcccaggat agtaagtttt tctctaccgt 1620
tcacaagttt tgtgctgctg ctccctctg gaaatggggt ttctttctct ccgcctacct 1680
cagctacctg ttctgagggt ctcaatctgt ttcgtattcc cacttcttta gggaaggagt 1740
tttaaaaaca tctcttaaaa taagaggagc aaaatctatt aaaacctatt ctcttgcaaa 1800
ggaggcagag actttctctc tctctttttt tttttttttt tgggtgtccct atcattaagc 1860
aagagccttt ctcttttatt ctctctgctt ccctaagctg ctcagggtc tctgagtctt 1920
gccctctgat ggcaagtctt atatataact aaacctatth ttgtcaccca tcaaaacaca 1980
tcctcagtag actgtgtgaa ggtgtgaagg tctgataatg acttgatgct ttatctccat 2040
agacatgaaa gccatgccct ctgcctctag atagggtgat ccaagagctc ctgaacctta 2100
ggaggttcaa agaagctcta ctgtctgtgc ccaggaggta gcctgccagc aagagccctc 2160
aggagtgcac cacacagcca aagggtgttc acacagatct ctgccggtct agccaggggga 2220
ggccagagtc tcgtcagtcaggatgggct tcccccttag ctgtgtccac agctgctcaa 2280
gctatactgg tcagagtggg ctttgaagct cctttgtgag ctcgagctgc tgactgccac 2340
tatgggagcc ttgccacctc cagccccctc atcccaaaga cgctcctgcc actggggccc 2400
caggtcctgc tgtatcagtt ctctttgggtg ggggggctaag gtttggggcg aggcaacctg 2460
agacaagaaa acgcagtaaa cattctgatt ccctgtacac agatgcagca ccagggggaag 2520

ggccagtggg gcaagtatct ctttttaaca ggtgaagttt ttggaaaaag tcactctccc 2580
taccctcag tacccttacc atcaactttg gttttatcct tccagtcctt attatatgct 2640
tgcttttaca tagttgtaat aatatacaca taaagtatct tgtatcctgc ttttatcatt 2700
caacattgta catgttataa gcattttact atattgttat atatcttcac aaagttgatc 2760
tgtaaagctg tgtaatttga aggcatccat aggggtgactg taccataatt ttgattcatc 2820
ccttggtgtt ggattcttgg tcaggggttg tttgttttgt tttattggta actttaaaat 2880
tttgaataca atttcagatt tacagaaaag ttgcaggaat atcacaaaga actcctatat 2940
atcttttacc cagatttact gagggtttac attttatccc atttgcctta tctatatctc 3000
atgttgcatc ttcttaatac ttgagaata atttgcacag ataccctatt atgccccaaa 3060
cagtatgcat ttccctaaga acaggacatt ctcttctaag agaagaagag aattacttta 3120
agcattattc agtatttttt taagtattat tatcaaaatc aggaagttaa acagtgattt 3180
aatactgtta tctaaccat gattcatatt taaattttgc catttatccc aataatgtcc 3240
ttttagacca ttcttttacc ttgtgcagga tcatgttaca ttgttaaagc tgtgtctctc 3300
aatactgcag attcctcaac tttcttttgt ctttcattac catgacattt ttgaagaata 3360
caggctatct tgtcg 3375

<210> 1444

<211> 3752

<212> DNA

<213> Homo sapiens

<400> 1444

atgacaaggc ctagcactgg gagtcattag gcaccagaac cctgaatgcc gagatagagg 60
gatggctgat ctcatgctaa tgagggttag accatgttga gccctacttt tgttctgtgg 120
gatgttggat atcccttata cacctatggc tccatcttca tcgttattgt aattatctgg 180
caagtgaaaa ggagccacca tgaattgaac ttggaagtig aaaggagctg ctgctggcgt 240
caccaaaaag tcaggcaaag agctagagat gcagcatcaa cagctaggag actttctcag 300
gaagaagatc agaagccaca agagctgttc tctgtcatga aaagccaggg ctggcttccc 360

ccagagggaa gtgtgcggcg aatcctatgt acagatccct gttgccaaat ttgcaatgct 420
atggctcttg agattcagca gttgctggcg gatgagaatg actagatctc cccaactttg 480
tcgaggagtc catcacaggt ctctctttgc ctagagatct tgtctctgtc tactgtatcc 540
tttgagcaga gtatagagct ccattccaga aatatcagag agctttcact ggcattctata 600
aaccaaacac tgtcacaatt aacagatcag aaatctttaa cccagtcagc tgcccagtc 660
acgtatgcag atggcataca agattactgg gctgatcacc tccagctagg gccggaattt 720
caagtgccag ctgtgctccg gggcccaaac accatagctt cttcaaggct tgacaagcca 780
agggctccac tggaccagga ggagatgagc agagcaaccc cagccttgtc cagggaaccc 840
aaggccagca tcacttgaat ttccaggctt ccttgctgtc cctgtacca gaaacctga 900
accggatgca tccgatggcc ttgcatatgg tctccctgc ccacctgcca tttctcagtc 960
ctgaagtgtc gaggcttctt gaggtacatg ttaaaaaatg gatgcatttc cagaggtggg 1020
ggctcccaag acgtgtggag gagtccctga ggcagcttat gccaaacca ccattgtatt 1080
accaacctgg aatgaccag ccagtttctt tcaacctgaa taatacttct caggtctctc 1140
ttcacagatc tgagaccatt tccctccaga cctgggtgtc atgtgtggct ggccagccca 1200
tccagacctt ctgggtttct gaatgggtcca caatgaaccc agaacaaga caccactgtc 1260
agcaaaactc aaacctatg gctctagcct tgccctctcc agcccttaaa gccctaagt 1320
gccccatcc acagtctggg ggacaagata atgactcagg gagtgatctc cagcagaaat 1380
acagccagct attctgtggg ctcccttctc tgcacagtga gtccctggtt gccactttca 1440
tgggatctca aggcctcccc aagattgaaa atgtgccaa gcccccttg aaggatcctt 1500
ttctcttcaa tgagctctcc ttccccaac tgctccctaa aacttcaccc cagtcagccc 1560
caccctcttc cccactttcg ccaaattggg tgtctccgtc tgaccatcaa cgagctcaga 1620
tcaatgtccc atttctgact ctggctgagt atgaagcctt ggagtggcac ctgctacaga 1680
ggcaactcca gcttcagtgg ggctggccag ctgccctcca gaggtctcag cacaccagtc 1740
gcctcatgca gcatgagccc tgtggcaaag ctgagctctc tgagaccacg acagcttccc 1800
agacagggaa gtccatctca gtgctcacca gggaactact cttcttcccg gagcatgccc 1860
ggaagctgct ggaattccac atccagaaac agtcgattcg ccatcgctgg ggcctgcctc 1920
agaagatcca gcagtccatc cagttgtctc ttacctccac tgaccagcag actgtgtcca 1980
gcagcagcac agccctagcc aacgtgagca tccccagcc tgtagcccta gaggccaacg 2040
gggcttgcca tgtgctgtca ccatttgcgg cccagtgctc catccccagg ccacacttgt 2100

taactcaggt caaggcaata ctgcagagcc acatcgactc caaatgtgga caaatccacc 2160
agggcaagat ccccgctgt gtacacaggt cctgggactg cagaatttct ggggtcctgg 2220
cagtggctcc ttttccctgc attccagaaa gccagttcct ggtactgcag acagcaagtg 2280
acccggacct gcatcacaaa gttatgccct ggatgccaac ggcccttgat cagcagcaac 2340
aggccttacc aggtactgtc actgaacacc ctaagctgct ccgagtcttg tctgtggaag 2400
ccattgagaa actggagaca actttacggc acaagcatct ggccttcctg tcggggctgc 2460
ctgctctgta ttatgtggcg ctccccaggg ccctggcccc ggcagtcact agccaatctg 2520
tcatcacaga gatggagcct agtcccgtgg aaatcccagc agagcctctg atttagatgg 2580
tttcatttga agaacagtgt ataagtcttg ggccatgcc tcaaggcaac aatgagagtt 2640
gtacagacgt tgcaaaagag ttccagcctg cagtgccagt aaaaggaaca atggagacgc 2700
tgcctctaga aagccagacg catcctacta gccccactc actccagaca catatcttga 2760
ccaaactaaa cttccacctg agaaaaaagg tcctagagat acaatgggga attcccatta 2820
gggcaaggaa gtccagggaa caaactgctg cagcaccaga gaacatatcc acacagaagt 2880
ctcttgaaag tctaaaccac caagggggga cattgctcca ggaactgccc atcccaccag 2940
acactcttcc tgcccctaatt ccagaagggg ttcaccttaa agaacagctg gccaatgact 3000
tgaaggcagt gcagcagaac caaaagcaat ccaattccaa agcagtacc cagggttctg 3060
cccactcgggt ctccaagatc tcacaacca gtggggacat gacagaggcc cacatgcctt 3120
gtgttcaggt agaggccagt gtgaacaacc ccagcctgga ggaaccctgt ggccctgagc 3180
ctcaaagccc tagcaagagc aaggaccag cccatgtccc catgctagca ggaaacagag 3240
aggacccaga ggaaacaaa gcagccaggg actacagaga aggggatgcg gggtttgggc 3300
gtcctcaac cagagaagag agacgccctg ctgaagacca gaggccagca gggatgcttc 3360
caaacaagac accccgaggg tcctggcgat ggagccgtag ctttcatctt gctgatccct 3420
gtcaacacag cccccagcat caccctcagt ttaagctccc acagctacct ccacaggtcc 3480
ctggggagaa agagtctgag aaggacctgc aagacagtca aaccaagcta actgtcatcc 3540
ttgaaccagc aacaattcct gagaataccc agactgtggg gccccagctt cacagggtca 3600
gcctttcctg agccaaccaa ctgagctaa gcctttgcag ggccaaactt tgcaatgcca 3660
agttttacat gggctggtga tgccagccca tactcaaaag aagcccagcc ttacagagtc 3720
tagcttcaga aataaaatta aatgttttct gg 3752

<210> 1445

<211> 3243

<212> DNA

<213> Homo sapiens

<400> 1445

aaattcgagc cctcgtgcac caaccgaaac tccacagctg agagggcctg gggcccggac	60
agcaggagat ccagcccctg agcaaccttc cacggctttt gtcgccccca ttggcgggag	120
gagcagggtt atgctcccgg ctcccgtagg ggagctccag cctctggctc tgtcagcctc	180
cccggcagct ccttgactcc ttcctcccgg tctttcgaag aggggcccag gcagtcacag	240
caaactgtac aatggcagtt gagtgggttt tgaaaaacgt ctgaattgta gtgtctacat	300
ctaccttctg ctttctctct accctttgaa aaaaaataaa tggcatgttt gagaagagag	360
ctctattaaa agaggaatat tgcaaatggc ttcagattct atgagtagta aacaagctag	420
gaatcacatt acaaagggga aaaggcaaca acagcaccag caaataaaga acagatcctc	480
aattagtgat ggtgatggag aagattcctt tatttttgaa gcaaatgaag cttggaaaga	540
ttttcatggt tctcttcttc gattttatga aaatggagaa ctctgtgatg tcacactcaa	600
ggttggctca aagctaactt cttgtcaca gctgggtattg gcttgtgtta ttccctactt	660
tagagccatg tttctttctg aaatggctga agccaagcaa acgctgattg agattagaga	720
ttttggtggt gatgcaatag aagacttggg aaagtttgct tattcttcac ggctcacttt	780
gactgttgac aatgtccagc ctctcttata tgcagcctgt attctgcagg ttgaactggt	840
ggctagagct tgttgtgaat acatgaagtt acattttcat ccctccaatt gcctggcagt	900
aagagccttt gcagaaagtc acaatcgaat agacttaatg gacatggcgg atcagtatgc	960
ctgtgaccat ttactgaag tagtggagtg tgaagacttt gtaagtgtat caccgcagca	1020
cctccataag cttttgtcct ccagtgatct aaatattgaa aatgaaaagc aggtctataa	1080
tgctgccatc aagtggcttc ttgccaatcc tcagcatcat tccaaatggt tggatgaaac	1140
acttgcacag gttcgcctgc cattgttgcc ggttgatttt cttatgggtg ttgtggcaaa	1200
agaacagatt gtcaagcaaa atctaaaatg tagagattta ctggatgaag caagaaatta	1260
ccaccttcac ttgagtagca gagcagtacc tgactttgaa tactccattc ggactacccc	1320

aaggaagcat actgctggtg tgctgttttg tgtaggtggt cgaggtggat ctggtgaccc 1380
ctttcgcagt attgaatgct attctatcaa caaaaacagt tggttctttg gaccagaaat 1440
gaatagtcga aggcgacatg tgggtgtaat ctctgtggaa ggtaaagtgt atgcagtagg 1500
tggacatgat ggaaatgaac atttagggag tatggagatg tttgatcctc tcactaataa 1560
atggatgatg aaggcatcaa tgaacacaaa gaggcgagga attgccttgg cttccttagg 1620
aggcccaatt tatgcaattg gagggttaga tgacaatact tgcttcaatg atgtggagag 1680
atatgacata gaatctgac agtggagtac agtggcacca atgaatactc cccgtggagg 1740
agttggctct gttgctctag taaacatgt ttatgcagta ggtggcaatg atggaatggc 1800
ttctttatct agcgtggaga gatatgatcc acatctggat aagtggatag aagttaaaga 1860
aatgggtcag cgaagagcag gcaatggagt tagcaagctt catggttgct tatacgtagt 1920
tggtggtttt gatgataatt ctctctgag ttcagttgag cggtatgacc cccgaagcaa 1980
caagtgggat tatgtggcag cacttactac tcccagaggt ggagtgggaa tcgcaacagt 2040
gatgggcaaa atctttgcag ttggtggtca taatggcaat gcataactaa atacagtaga 2100
agcgtttgat ccagtgtga ataggtggga gcttggttga tctgtgtctc actgcagagc 2160
tggagcagga gtagctgtgt gttcctgttt aactagccaa attcgagatg taggtcatgg 2220
atccaataat gtggttgact gtatgtgatt tgagttctgg ccaccaacaa tttagtcata 2280
tctgataggt acaaaagaaa accaagattt tgatatgacc acctttcaac actttttact 2340
gcaactagag tcttatttaa atgttaactg ttgtattgtg actaagtaca acttttggaa 2400
tgataacctga agaattatta gtaatagagt taaatttgat acttctgct tttgcaaata 2460
atggagtagg gaagaagata gtcgaactta aaatcatacc taccctgaaa aatgcttaaa 2520
gtagtgccaa aaatcttgaa atctctctct ctctctatct ggatgaatca aaatgtaatt 2580
tgttgagttt tgccttttct tttgcctaaa gatgttaacg tcaggcagtg ggtttttcct 2640
agaggagaga ttagtaccta ttcattaaca caaggataca taagagactt gccccttttg 2700
aagatcattt ctacttggtg ctgatgaatt tatgcctagc ttttttttc taggtggtga 2760
tttttcaatt tcttttatat ttacggaagt agaaaaaatg ttctgtcttt ttgaatgcca 2820
cttagctgca ttttcagaag cttataggct ataagaagcc ttttaatttca gtttgaattg 2880
ctaggacacc aaaagaccta gctgggctaa ctccatccaa atgattttac agttttatct 2940
tttcatcttt tgcaaaaagt atttgttaca taatcaaaag gtgaaccaga ggaaatattg 3000
aacaaggttt tagatctgat gttattctgg tgccaattg agagaccttg agaaagaatg 3060

atgcagatta catgactcta atgtgggcag tctgaaaata tctttaactg tcttctttga 3120
 tcatttgatt ttggatccaa gatttatcat ctctctatct tgctatttgc caccatcctg 3180
 gtttttctga ctgtacagaa tcaatctgca tttatttatt atcagaaatg aatgcatttt 3240
 tac 3243

<210> 1446

<211> 2575

<212> DNA

<213> Homo sapiens

<400> 1446

acagcagccg agaagggttt ggggagctga gaggaggggg aggccaagcc caggagcaag 60
 aggataactc ttttagcaga gcagattcat tgacaatgct gaagtcagtt aaagccacag 120
 caccatgttc ctctggagga tttcccaatg gcttggagta aggggaaccag ggccacatgc 180
 ctgaagtctc tgtcttggac ccactcttcc taggctgtct cctccttggga ttcttgattc 240
 taaactctct tgagttccct cccctgcctc ctctcttcca aatctcctat tcaagcactc 300
 ctattgcgta ccaactatgt ccttgggaact gcactagcca ccagggatat aaaggtaaga 360
 taagtctctg ccctcaggga gctcttaaca gctctagtct gctcagccta gaagactatc 420
 tcctaaaaca aacttcttcc tggactgtgg cacctttttt tttttttttt ttttttact 480
 tgaactatgg cagttcttca accaggagag ctgggatcag aaccaggtc cgtctgacat 540
 gcccagggtt ctcttccag agtgccactc tctgcctccc agtcaattag aaaaacatgt 600
 ctacttggct gcatggccat gtcagcctct gatggcagct actgtcctct tgttgatgag 660
 ataccatgta actttaggtg gacttcaatg ttctcacatt taaaatggaa gacttggcca 720
 ggtgcggttg ctcacgcctg taatcccagc agtttgggag gccgaggcgg gtggattacc 780
 tgaggtcagg agtttgagac cagcctggcc aacatggatg aaccctgtct ctactaaaaa 840
 tacaaaaatc agccgggtgt ggtgatgcat gcctgtaatc ccagctactt gggaggctga 900
 ggcaggagaa tcgcttgaat ccaggaggtg gaacttgcag tgagctgaaa tcatgccact 960
 gcactccagc ctaggcaaca gactgagact ccacttcaat aaaataaaat aaaaaatggc 1020

agactcacca ggcacagtga cacatgcctg tcatctcagc actttgggag gctgaagtag 1080
gaggatcact tgggacctgg agtttgagac cagccttggtg acgcagcaag gctccatctc 1140
tacaaaactg aaaaaaaaaat tatggccagg cgctgtggct cacagcctgt aatcccagca 1200
ctttgggaag ccaaggtggg aagattgctt gagcccagga gctcaagacc agcctgggtg 1260
atatagtga atctcttctc tattaaaaaa aaaaaaaaaa agcctgggca cggtggctca 1320
cgctgtaat cccagcactt tgggaggctg aggcgggcag attataaagt caggagttcg 1380
agaccagtct ggccaacata gcgaaacccc gtctctacta aaaatacaaa aaattagcag 1440
gtatggtggt gtgcgcctgt aatcccagct acttgggagg ctgaggcagg ggaattgtgt 1500
gaacccggga ggcggagggtt gcagtgaacc gaggtccac cattgcactt cagcctgggt 1560
gacagtgcga gaccccgtct caaaaacaaa aacaaaacag gccagggtgg tggctcacac 1620
ctgtaatcct agcacttttg gaggtgtgtt tgggtggatc acctgaggtc aggagttcaa 1680
gaccagcctg accaactatg tgaaatcccc tctttactaa atacaaaaaa gaatcacttg 1740
aaccgggag atggagggtt cagtgaactg agatcatgcc attacactct agcacgggca 1800
gcaagagcga aactccatct caaaaaacaa acaacaaca acaacaaaaa aacaatgagc 1860
tgggcatggt ggcacatgcc tccagtccca gctacttggg aggctatggc gggaggatgg 1920
cttgagccca ggagtctgag gctttggtga gccatgattg caccactgca ctccagcctg 1980
ggtgacagag ctggaaataa agtatataaa gagaagacc cttccttact caggaggtca 2040
aactatgtga caggtgtaaa aatggtttta aataaagggtg tggaagaaat gctggagatc 2100
attgtcataa tcctaggaac agccagggat gggggaggtcc tggaggattg gatttgagg 2160
taagatgcgg tgctcaccaa atgttggtcc attgggaagt ggtggcacct ctatccttga 2220
gacctgaggc tggaaaatgc tgtgaggatg agaaaatacc agtcattcag ggttggagga 2280
gacttgaatg ctccatttta aaaaatgtag ccgccctgcg tgggtggctca cgcctgtaac 2340
cccaacactc tgggagaccg aggagggtgg atcacctgag atcgggagtt cgagaccagc 2400
ctgaccaaca tggagaaacc ctgtctctac taaaaataca aaattagcca ggcgtgggtg 2460
cacatgcctg taatcccagc tacttgggaag gctgaagcag gagaatcgct tgaacccggg 2520
aggtggagat tgcgccattg cactccagtc tgggcaacaa gagtgaaact gtctc 2575

<210> 1447

<211> 3156

<212> DNA

<213> Homo sapiens

<400> 1447

gtttgggcag aggctctgca gcctccactg ggagggtgca ggctttaact tgagggggaag 60
ctggagaccc ctgcgaagca tgtgggagca gaggtggcca tggcgggcag gacaggaggg 120
agggtctgag agcaacaggg agaggaccga aatagccctt gtcctaggtg ctcgttccca 180
ggaagctggc ttggagtgag gactgagtgg acgctgcagg tgccaggagg cggttggtag 240
cccgaaggca gaagcacagt gtagggcatg tgggcgacat ggaggctgcg tctttatggg 300
gatgtagcag ggacctgggc cgagggggaa gtcagcacgg ctgtcctgct gcacagcatg 360
gtgctgacgc cgaggtcaag gagaaagaac aagaggcggg ggggtgtcagc tactgggaca 420
ttggcaagaa cgaaattaat tcccctggaa agagatggct gggtaagcgc accactgaga 480
gatggctggg taagcgcgtc actgagagat ggctgggtaa gcgcgccact gagagatggc 540
tgggtaagcg cgccactgag agatggctgg gtaagcgcgc cactgagaga tggctgggta 600
agcgcgccac tgagagatgg ctgggtaagc gcgccactga gagatggctg ggtaagcgcg 660
ccactgagag atggctgggt aagtgcacca ctggcctttc tggttgccac ctagggcgtg 720
ggaggaggca gccagccttc ccctccttcg cagtgcaggc tgtgagcgtg gccgtcagaa 780
cctagccttg agggccgaat tctcagcaca ggtgagcagg cggcttgacc ctacagctgc 840
ccagagtgag ctttcaagct gcctccaggg atggcgctga gccagggaat tctgcatttg 900
tgctcgtgcg cagacagtag gaggcggcca acgtgccagt gcctttgcca tagttgcttt 960
tggagcttca gttttgaaag agcttacaaa gactgaagca gggacagatg accaagaaca 1020
gctcgtctgc aggaggtggc aggaaggcca gcctggcttg gactgagatc cggagagagc 1080
actcaagatg accaaggga cttagaatt aggagaatgt gagttctttg agggcagcag 1140
ggattgttcg ctgctgcgtc accagctttc catctgtctg tgaagtgaag ctcttctaga 1200
agttttctag agattgattc caggcagtct gtgatttcta aatctagcct ctctctacca 1260
ccacatcggg gcctttgccc tcaacagccc tttttggggg ctggtctgct gtcccgccaa 1320
tgtctttggg gtcgccagct gcgattcagt atctggcttt caggtccttt ccaaatcca 1380
ggcgctgttc cctgggatgt agaggggctg aactcaggta gagcagctcg gagacctgcc 1440

tggctccctt ggtaggacgg gcactccctt tccaacctca gctcagaccc attctagaga 1500
gacacctccg tcagccagct ctggttttgt caccaggaga acctgggttg gacggaggat 1560
atggctcacc tccacaggtg cctgcacgtg ggcgtgctcc cagcactggg ctcgtccttg 1620
aaaacagcag cttctgacgg gcaagagggg aaggaacctg gcgcagcagg tggatctgct 1680
gcagccaagg agggacctgg ccagtgtgga agtccctccc tcccctgggg ctgagggtag 1740
gcaggagtga agggatgcag agaggcagga agcccagggg aagggttcc cgtttttaac 1800
agctcccggg aaaatggtga ggacatccca ggcccagggg cactcaacac tgcctcgtcg 1860
gaattaagga aattgatggc acaagcattt tgtgcgtacc ctgggtggtt cattttggga 1920
cacagcttcg ttggcggtgc tctgcctcgc cccttgggga agtaaaggcc acaccgaggt 1980
tgtgggtccc atccttgacg gagagtgtgc cgtgggcaag cacggcttcc cccaggacac 2040
tcaggtttgc aagttgcaag tttgcagggt gccacacca ccggccgtga gacacgcttg 2100
tcccagggcc acaccattg cttgccaaag ctttctgtta tgaacacaac tctggtgaag 2160
gtccagttt atgggggctc tttcacctg ggtgtgtgtg gagccagaca tttgcacgtg 2220
taaatagcaca caggcctatc cttgatcaat gtggccatcg agaggccgag gttagagttt 2280
gtgaggcagc ccgccttgcg acccagagat ccagaggtaa gaatccatgt gcagcgaact 2340
gtgagtgcc aacgctttca ttcgtcacca ggaaacggag gctgccactg acacggcagg 2400
agaatgaaga cctagctgaa agttcgcagc agaacgagct cccacctgtc tctcaattgc 2460
aaaacattca aaacagaggc ggtggggcct tagcgtgtca ggggtgtagat aggccatttg 2520
aaagccacag ccgcttatgt ggtgggttga tctgtttcat cagattctca tttggggttc 2580
atgtcttatg ttgggatgtt tttcatgtag gtcacccgtg tgaacagaaa gtgagaggtt 2640
gtagcacatt gccaccgtcc agatctcggg tcatctcaaa cgatggagcc agccgcttct 2700
ctggaggcag cctcctcacg actggaagct caaggcgaaa acacgtggtg caagcacaga 2760
agctggcgga cgtggacagt gagctggctg ccatgctact gacctatgcc cggcagggca 2820
aggggccccca ggacgtcagc cgcgagtcgg atgccacccg caggcgtaag ctggagcgga 2880
tgaggtctgt gcgcctgcag gaggccgggg gagacttggg ccggcgtggg acgagcgtgt 2940
tggttaagggt ttgttcagct gtcactgtcc tgggatctcc atgcagactg agtcactgtg 3000
cacgtccttt ccctgcctcc cacatgattc tctcttacct tcctcccaaa tcctggggac 3060
agaatataag aaaatcggac tttttcagcc accgggggaa atctttaagt gagaattatc 3120
tggagagctt ttaataaaaag ccagttcttg ggcgtc 3156

<210> 1448

<211> 3745

<212> DNA

<213> Homo sapiens

<400> 1448

atttgtttgc tgcctgtaca gactttgagc atcgtttaagg cccacgggcc cacggtgagc	60
ttgctgctgc atcggaaga ctccgtgga tacgccctgg gccaggtgcc ctggctcctg	120
aaccagtata aagacaaaga gattgatttc catgtcactc agtttgcaac gttgaacagg	180
aatctggaga aaccagtga aactaacttt catgagaatg aaaaggaaga ggaatctgtc	240
cgagaaacaa gccttgaggt cttaaaaacc ctggaccac tggtcattgg aatgcctcag	300
gtgctatggc caaggatcct gacttttgtg gtacctgcag aatacacaga agctctggag	360
cccctgttta gtatcatcag aattctgatt atggcagagg agaagaagca gcacagtgcc	420
aaggagtcga cagcacttgt catctctacg ggagctgtga aacttccttc accacagcag	480
ctactggcca gacttctgggt aatatctatg cctgccagtt taggggagtt acgtggggct	540
ggtgcaatag ggcttttgaa gatactgcct gagataattc acccaaaatt ggtagaccta	600
tggaaaacac gtttacctga gcttctgcag cctctggaag gaaagaacat cagtaccgtt	660
ctatgggaaa ccatgctgct tcagttgctc aaagaatcct tatggaagat cagtgatgtg	720
gcctggacca ttcagctgac tcaggatttc aaacagcaaa tgggcagtta cagcaataac	780
tccactgaga agaaattcct ttggaaagcc ttgggaacaa ccttagcatg ctgccaagat	840
tcagactttg taaactcaca gattaaggag tttctgactg ctccaacca actgggggat	900
caaagacagg gaataacatc tattttagga tactgtgccg agaaccattt ggatattggt	960
ttaaaagttc ttaaaacatt ccaaaatcag gaaaagtitt tcatgaatcg atgtaagagc	1020
ctttttctg ggaaaaagag cctgaccaag acagatgtca tggcatcta tggagcagtg	1080
gccctccatg ctccaagaa gcaacttctc tccagactta atcaagatat catatccaa	1140
gtcctgtctc ttcattggcca gtgctctcag gttctgggca tgtctgtgat gaacaaggac	1200
atggatctgc aatgagttt cacaagaagc atcactgaga ttggcattgc tgtccaagat	1260

gctgaggatc aggggttcca gttttcctac aaggagatgc tgattggtta catgctggac 1320
ttcattagag acgagcccct ggattcctta gctagcccta ttcggtggaa agccttaatc 1380
gccattaggt atctcagtaa actgaaacct cagctctcac tacaagacca ccttaacatt 1440
cttgaggaga atattcggag gctgctgccc cttccacctc tggaaaatct gaaaagtga 1500
ggccagacag acaaggacaa ggagcacatt caatttctct atgaacgatc catggacgcc 1560
ctaggaaaac ttctgaagac catgatgtgg gataatgtga atgcagagga ctgtcaagaa 1620
atgtttaatc ttctccaaat gtggcttggt tcacaaaaag agtgggaaag agaaagagcc 1680
ttccagatca ctgcgaaagt gctgacaaaa gatattgagg caccagagaa ctttaaaatt 1740
ggttcactgc ttggacttct ggctcctcac tctgtgata ccctgcccac catccgtcag 1800
gcggtgcta gctcaactat tggctgttc tatataaaag gcattcactt ggaagtggaa 1860
agactgcagg gtttgcagga agggctggaa agtgatgacg tgcaggttca gatcaagatt 1920
tcttctaaaa tagctaagat tgctagtaag ttcattccaa atgaagaaat tctgatgttc 1980
ctagaggaaa tgctggacgg tctggagagc ctcaaccca cttgtacaaa ggcctgtggc 2040
atatggatga tcaactgcct gaagcagcag ggagctgctc tggagatca gctattggag 2100
atcttaggca caatctacca tcacatgcca gtcctcagac aaaaagaaga aagttttcag 2160
ttcattctag aagccatctc ccagatagcc agctttcaca tggatacagt tgttgtcaac 2220
cttttacaga agcctctgcc ttttgacagg gacacaaaga cattgtggaa ggcgctggct 2280
gaaaagccag cctccagtgg gaaactcttg caagccttaa tagacaaact ggagactgag 2340
ttagaagatg acatgccag gggtgaggca atttcagtgg cctgtgctat gtatgaagtg 2400
atctcaatgg gcacctctgt caccggcttg tatccagagc tgttactct cctcctgaag 2460
ctggttagct gcacactggg ccagaagatg cccacttgct cctggagcca taggcggcat 2520
gtgatgcagc agggagaaca gcagcagatc ccagaccct gcaggctttc aactgctact 2580
ttaaagtgtt tgcaagcca agccatgaga gaaggccttg caaaggaatc tgatgagggg 2640
gacaacttat ggactctact cagcagtcct agtaccacc acataggcgt atgttactg 2700
gccaggagca tggcagtgtg gcaacacgga gtcatactgg acatcatgga acagctgctc 2760
tcattcttta cctctctctc ggagaactac cggataaccg gcgcagcttt cttctctgag 2820
ctcatgaagg aaccaatcct ttggaagcat gggaatctgc gaaatgtgct gatcttgatg 2880
gatcaaagtg cctgggactc caacgccact ctgaggcaga tggccatccg agggctcggc 2940
aacacagcat ccggggctcc tcacaaggtg aagaacata agcagttaat gctagaatct 3000

atcatcagag gcctgtatca cctagctcgc actgaagtcg tctgtgaaag cttgaaggct 3060
 ctaaaaaaaaa tcctggagct gctgacagac cgagacgtga gcttctactt caaggaaata 3120
 gtgctgcaaa caaggacctt ctttgaagat gagcaggatg atgtgagatt gactgccatc 3180
 ttcttatttg aggacctggc acccctaaca ggaagaaggt ggaagatttt ttttgctgaa 3240
 gaaataaaaa agagcctgat ttcattcctt ctgcaccttt gggatcccaa cccaagatt 3300
 ggagttgctt gccgtgatgt cttgatggtc tgcattccct ttttgggcct ccaggagctc 3360
 tatgggggtat tagaccgtct cttgatcag gatctaccaa gggccaggga tttctacagg 3420
 caattctgtg tgaaactggc caagaaaaac caggaaattc tgtggatcct ccacacacac 3480
 tccttcacct tcttcaccag cacctgggag gtgatcagga gtgcagctgt caaactcaca 3540
 gatgccgttg ttctcaattt gaccagccaa tatgtggagt tactagacag agaacaactg 3600
 accacacgac tccaagcact tcgtcaagat ccgtgtatta gtgtccagag agcagctgag 3660
 gctgctttgc aaaccctcct gagaaggtgt aaagagacaa gcattcctct gtaagccatc 3720
 aagaaataaa ctgctggctt ttctt 3745

<210> 1449

<211> 3558

<212> DNA

<213> Homo sapiens

<400> 1449

gcggccccga gcccgcgggg ctgtgcggat ggtagggatg ccgaccctac tgaggagcag 60
 atggcagaaa cagagagaaa cgacgaggag cagttcgaat gccaggaaact gctcgagtgc 120
 caggtgcagg tggaggccga ggccgtggct gccggctgga tgctcgattt cctctgcctc 180
 tctctttgcc gagctttccg cgacggccgc tccgaggact tccgcaggac ccgcaacagc 240
 gcagaggggtg agtgcagacc gcgtccgggc cgggactacg cggggggcgg atgcgggctc 300
 cgtgggtgcgc ggagaggggc tggttcccta cgctcgccgag ggaggtcggg agagaggggc 360
 tgctgcggcc gattagctgg gagtccgagg ctccgggctg aactttgttc gaatcccgtt 420
 tcgcccgttg tcagcacctg agtttttctc agattgattt cctcttcgat aaaatgaaaa 480

taagaccctg tttaggtttg atgcaagcat taaatgagtt aaaatgtata cagttccact 540
caaccagta cctttgtctc ttttggcgct ttctactcag gtattcctgt agtaatattc 600
agcagtcctt gtggcctcca gtaacccccg aggcatcagt gttttatgtt aatttgtgag 660
ctattaaatc tcatttggcc tgctggctct acagcagtta cttttattct gtgtagtctc 720
agaataaaaag taaatgttgg ccacatgcct gcaagtccca gctacttggg agcctgaggt 780
gggaggatcg cttgaacca agaggcagag gttgcagtga gtcgagatcg tgccactaca 840
gtcctgcctg ggtaacagag tgataccctg tatgaataaa taaatgaatg aatgaaactg 900
ttcatgaaat ctgctgcacc ccgccccgt cccaagatgg ggtctcactg tcaccaggc 960
tggagagtgt agtggcgcca tcacagctca ctgcaggctc gacctctca ggctcaggta 1020
tcctcccgt tcagcttctg gagtagctgg gtctgcaggc gtgcaccacc accgcagct 1080
gtaagattac aggtatgagc caccgcgcct ggcctagtgt agctttttga aaaacaacag 1140
aaagatgttc tggacttca ttcatagttg gcgctaaaat tactgtgcaa gtatatattt 1200
ataatactat aattatgcta tttaatagaa ttcttagaca tttgacaca tttcatcttc 1260
accataatcc tgtgagttag gcaaataatc ttagttttaa ggtactgata ggttaaaagg 1320
gagtgtttca gccccatctt ttatcttcca gttcaaggat ctttcctctg tattgcggtt 1380
aacactggag ccagggataa ttaacattaa gtagaaaatt aaatcctgga atgaagctag 1440
ttcctcagaa ttctcttaga gttctcttag agttggagac atcagtatga actgttttagc 1500
tcatgtaggt atagatgact tagaaatatt tgcatatgca tgtgtagaca taggttacta 1560
tacaaatag tatttcctta ctctgtcaga taaaagggca cagaagcaac ctaactctag 1620
taacaatgag tacacctagc accccgatct tgtttacaac taagtttagt ttaaagacct 1680
cacttggctt tattgtgatt ctggattcag gtaatacttt attccataaa ataagtgtc 1740
aatgaattga gcagttgggg gttggcttta tagacagtaa ggacttaagg aagctgaaac 1800
agaacaaaaa gaagattggt tatttcacag ttacttgtaa ggctgggaca gggagacaga 1860
acaatagata catgggatgc agaatggatg ttgtgttatt aggcatgaaa gcaacagtaa 1920
tttccttgta tgtacgtctc cctcagagct cttgagtggg taggcgcatt atcaatgagc 1980
aatgggtattt tgaaaggaat cttttttcca agcagtagat ctcaataatg ggcttaaaat 2040
attcagtaaa ccatggtgta aacagaggca ctgtcatctt gttccatttc tagagcacag 2100
gcaaagttga tatatcattt gaagggcctt aagattttca gaatgagaaa tgggcaatgg 2160
gtttaactta aagtcaccag cagcattagt ccctaaggag agtcagcctg tcctttgaaa 2220

tattaaagtt aggcattgac ttctctctgg ctatgaaagt tctctatgac atcttcttct 2280
aatatgaggc tgtttcatct acaatgaaaa tctgttggtg gctggataca gtggctcaca 2340
cctgtaatcc cagccctttg gaaggccaag gcagttggat cacttgaggt caggagtttg 2400
agacaccagc ctggccaaca tggcgaaacc ccattctctac taaaaataca aaaattagct 2460
gggcattgtg gcacacatct gtaatccag ctactcagga ggctgaggca cgaggatcaa 2520
tcacttgagc ctgggaggtg gaggctgcag tgagctgagg tcacaccact gcccttcaac 2580
ctgggtgaca cggcgagact ctgtctcaca aaaaaacaaa atcagttgtt tagtgtaacc 2640
accttcattt gtgattgtag ctagatcttc tcaataactt gtagctttta cttcagcact 2700
tgctgcttca ccttgcactt ctatgtcaca gagatggctt cttttcttaa acctcatgaa 2760
ccaacaacct ctgctagctt ccaacttttc ttttgcaatt ttcttacctc tgtcagcctt 2820
cttagacttg ctctggatta ggctgtggct taaaggaatg ttgtggctgg tttgattttt 2880
tttttctatc caagtcaaac tttctccata tgagcaatag gctcttttac tttcttatca 2940
tttatgtgtt cagtggatta gaacttttaa tttcctttga gaacttttc tttgtattaa 3000
caacttggct gttagacaca agaggcctat gtttcagcct atcatggcat ttgacatcct 3060
ttctcacta agcttaatca tttctagctt ttgatttaaa gtgaatgact tgcaactctt 3120
cctttcactg aaacacttgg agggcatgta gagttactca ttggcctaata ttcaatcttg 3180
ttgtgtttca ggagataagg aggcctgaag agaggagta aggggaaggg ctggctcagt 3240
gagcagttag aacacacaca atatttatgg aataagtttg tgtcttatgg gcatgatttg 3300
tggtactcca gaacctttac aatagtaaca tcagagatta ttgatcacag accaccatac 3360
agatataata ataatgaaaa agtttgaaat attgcaagaa ttatcaaaat gtgacaggta 3420
caggtactgt tagaaaaatg agccagacgc ggtggctcat gcctgtaatc ccagcacttt 3480
gggaggctga ggcgggcaga tcacgaggtc aggagatcga gaccatcctg gctaacatgg 3540
tgaaaccccg tctctact 3558

<210> 1450

<211> 3015

<212> DNA

<213> Homo sapiens

<400> 1450

agtaacaatc	tgatctctct	ttcttttccc	cacatttccc	cctttttcttt	tcgacaaaac	60
cgccatcgtc	atcatggccc	gttcttgatg	gtcgtgtgtct	cttcagagct	gttgggtaca	120
cttcccagat	ggggcggcct	ggcagaggcg	ctcctcactt	cccagatggg	gcggccgggc	180
agaggcgctc	ctcacctccc	agacggggcg	gcctggcaga	ggcgctcctc	acctcccaga	240
cggggtggcc	gggcagaggc	gctccccacc	tcccagatgg	ggcggccggg	cagaggtgct	300
cctcacctcc	cagacgatgg	gcggtcgggc	agaggcgctc	cccacctccc	agacgaaggg	360
cggccgggca	gaggagcccc	tcacctccca	ggcggggcgg	ccgggcagag	gcgcccctca	420
cctcccaggc	ggggcgggcg	ggcagaggcg	cccctcacct	cccaggcggg	gcggccgggc	480
agaggcgctc	ctcacctccc	agacggggcg	gccgggcaga	ggctcccca	acctcccaga	540
ggaaggcgcg	ccgggcagag	gagccccctca	cctcccaggc	aggcgggccg	ggcagaggcg	600
ctcctcacct	cccagacggg	gcggccgggc	agaggctccc	ccaacctccc	agatgaaggg	660
cggccaggca	gaggcgcccc	tcacctccca	ggcagggcgg	ctgggcagag	gcgctcctca	720
cctcccagac	ggggcgggcg	ggcagaggca	ctcctcacat	cccagacgat	gggcggccgg	780
gcagaggcgc	tcctcacttc	ccagacgggg	cagctgggca	gaggcgctcc	tcacttccca	840
gacggggcag	ccgggcagag	gcgctcctca	catcccagac	gatgggcggc	caggcagagg	900
cgctcctcac	atcccagacg	atgggcggcc	gggcagaggc	gctcctcgcc	tcccagacgg	960
ggcggccggg	cagaggcgct	ccttgccctcc	cagacggggg	ggtggccggg	cagagacgct	1020
cctcgccctcc	aagacggggg	ggcggcaggg	cataggtgct	cctcaccacc	cagacggggc	1080
ggcggggcag	aggcgctcct	cacctcccag	acggagcagc	caggcagagg	cgctcctcac	1140
ttcccgagc	tgctggtcag	gcagaggcgc	tcctcacatc	ccagacgatg	ggcggccgag	1200
cagaggcact	cctcacatcc	cagacgatgg	gcagccaggc	agtgacactc	ctcacttcgc	1260
agacagggtg	gcggccaggc	agaggcgccc	ctcacttccc	agacagggcg	gccgggcaga	1320
ggcgctcctc	acttcccaga	cggggcggct	gggcagaggg	cctccccaca	tcccagacga	1380
tgggcggcca	ggcagagacg	ctgcccactt	cccagacggg	gtggtggccg	ggcagaggct	1440
gtaatcttag	cactttggga	ggccaaggca	ggcggctgga	aggtggaggt	tgtggcgagc	1500
cgagatcaag	ccactgcact	ccagcctggg	caacactgag	cattgagtga	gcgagactcc	1560
gtctgcagtc	ccagcacccc	gggaggccga	ggcgggcaga	tcactcgagg	tcgggagtgg	1620

gagaccagcc cggtaacag ggcgaaccc cgtctcctcc aaacatacaa aaaccagtca 1680
ggcgtggcgg cgcacgcctg caatcccagg cactcggcag gctgaggcag gagaaccacg 1740
ggagcccggg gcagggaggc tgcggggagc caagaccacc gcagtacagt ccagcctcga 1800
caacagaggg agactgaaga aagaaagaaa gaaaggggag agagggagac gaaagaaaga 1860
aagaaagaaa ggaaggaagg aaggaaggag aaagaaagag aaagaagcgg gggggggaga 1920
gagagagaga gagaggagaa agaaagaaag aaaagaaaga aaggggagag ggagagagca 1980
caaaatttta aaaatgtttc tttacctttg agtcctatgt tcttacattg ttttataatc 2040
ttttttcttg gtcttcaaaa caataaaata ttttttctc ccaagaataa tgagatatc 2100
attcgtatgg gggttccctt cctccacct caaacatatt gagtattctt agatgatctc 2160
actttctgtt tcctattaga agcctcctct tagattttat ttatttactt ttcctaaggt 2220
acttttgta tagcaagaag gctcctcttg gattttaaca aaaagggtc agattgccag 2280
ttaagtgcct caggacagtg aggaggaagt cctggctaca aatcacctt ttagagaaac 2340
ttctctttgt ggaggatatt attttagtt ggctaagatg ctatgtcaag ttaagatctg 2400
gtgtggccac attgttgct tgcactagaa tagtcctgct tcctcctaga gtatatgtca 2460
gctctgtgta gcttccttg gtacactaga aaatggctg ccactagtagt aaccaactac 2520
tatgtcctat gtcttgagg acagttctca aattctgcca agttgttctc tgggtgctgc 2580
acctcattgc atccaaagag aatccccctg atttathtag caagaatgtt cttccaaccc 2640
cgagcttcac tttgggtctt tgctacagct tttctcaaat cccgctagtt tgcagctgtt 2700
aaaagaactc tctataatcc gaaaataaaa ttctaggctg ggcatgctgg ctcatgcctg 2760
taatcccagc actttgggag gccgaggtgg gcggatcact tgaggccagg agttcgagac 2820
cagtctggcc taacatgatg aaaccccatc tctattaaaa tacaacaaaa aaaaaaatgg 2880
tggcacatgt ctgtattccc agatacttgg gaggctgagg agggaggatt tcttgagctc 2940
tagatgtaga gactgcagtg agccgagatc atgccactgc agtccagcct gggcgacaga 3000
gcgagactct acctc 3015

<210> 1451

<211> 3832

<212> DNA

<213> Homo sapiens

<400> 1451

actcagacac	gcagctggac	ccgacagggc	ggcttccggg	tttggcgcg	cctttgtctc	60
ttgctgcagc	cggagctccg	gtctcgtctt	cactgctgtt	tgtcctctgc	tcctagaggc	120
ccagactctg	tggctctgtg	acctgcaggt	attgggagat	ccacagctaa	gactccagga	180
ccctctggaa	gcctagaaat	gggaccattg	acatttatgg	atgtggccat	agaattctct	240
ctggaggagt	ggcagtgcc	ggacacagca	cagcagaatt	tatataggta	ttgctgtgtc	300
taatttagac	ctgatcacct	gtctggagca	aggaaaagag	ccctggaata	tgaagagaca	360
cgagatggta	gccaaacccc	cagctatgtg	ttctcatitt	gccaaagacc	ttaggccaga	420
gcaatatata	aaaaattctt	tccaacaagt	gatactgaga	agatatggaa	aatgtggata	480
tcagaaaaggc	tgtaaaagt	tggatgagca	taagttgcac	acaggaggct	acaagggact	540
taaccggtgt	gtgacaacta	cccagagcaa	aatagttcag	tgtgacaaat	acgtgaaagt	600
ctttcataaa	tattcaaatg	caaagagaca	taagataaga	catactggaa	aaaatccttt	660
caaatgtaaa	gaatgtggca	aatcattttg	catgctttca	caactaactc	aacatgagat	720
aattcatact	ggagaaaaac	cctacaaatg	tgaagaatgt	ggcaaagctt	ttaaaaagtc	780
ctcaaacctt	acgaatcata	agataattca	tactggagag	aaaccctaca	aatgtgaaga	840
atgtggaaaa	gcttttaacc	agtcctcaac	tcttactaga	cataagataa	ttcatactgg	900
agagaaactc	tacaaatgtg	aagaatgtgg	caaagctttt	aaccggtcct	caaaccctac	960
taaacataag	atagttcata	ctggagagaa	accctacaaa	tgtgaagaat	gtggcaaagc	1020
ttttaaacag	tcttcaaacc	ttactaatca	caagaaaatt	catactggag	agaaacccta	1080
caaagtgtga	gaatgtggca	aagcctttac	cctatcttca	caccttacta	cacataagag	1140
gattcatact	ggtgagaaac	cctacaaatg	tgaagaatgt	ggcaaagctt	ttagtgtatt	1200
ttcaaccctt	actaaacata	agataattca	tactgaagag	aaaccctaca	aatgtgaaga	1260
atgtggcaaa	gcttttaacc	ggtcctcaca	ccttactaat	cataaggtaa	ttcatactgg	1320
agagaaaccc	tacaaatgtg	aagaatgtgg	taaagccttt	accaagtcct	caactcttac	1380
ttatcataag	gtaattcata	ctggaaagaa	accctacaaa	tgtgaagaat	gtggtaaagc	1440
cttttagtata	ttctcaatcc	ttactaaaca	taaagtaatt	catactgaag	acaaacccta	1500
caaagtgtga	gaatgtggca	aaacttttaa	ctactcctca	aattttacta	atcataaaaa	1560

aaattcatac tggagagaaa ccctataagt gtgaggaatg tggcaaaagc tttattctgt 1620
cctctcatct tactacacat aagataattc atactggaga gaaaccctac aaatgtaaag 1680
aatgtggcaa agcttttaac cagtcctcaa cccttatgaa acataagata attcatactg 1740
gagagaaaacc ctacaaatgt gaagaatgtg gcaaagcctt taaccagtcc ccaaacctta 1800
ctaaacataa gagaattcat accaaagaga aaccctacaa atgtaaataa tgtgtcaa 1860
ccttttagtgt attttcaact tttattaaaa cacaagataa ttcatactgg agagaaatcc 1920
tacaaatgtg ataaatgtgg caaagccttt aactggctct taatccttat gaaacaaaag 1980
ataattcata ctagagagaa accctacaaa tgtaaagaat gtggcaaagc atttaactgg 2040
tccttaaadc ttactaaaca taaaaaaact taaactggag agaaactaca aagctggaag 2100
acatcacagt aattctgaca acacctcaaa cttttctaaa cataaaataa atcatactgg 2160
tgaggaactt taaaaatgcg aaaaatgtga caaatcttt aaatgattgt cacacttgat 2220
tgtaggtaag ataattctta ctagaaaaac tcttacaagt gtgaagaatg tggcaaaatt 2280
tttaatgaat actcacacct tattgccagg aaagcattta tacttgagaa aaattgtacc 2340
aatataaaga ctgtgaaaaa gccattaatg tctgctcaca tcttactcaa catcagagag 2400
tacttaaaaa aagtattata aatttaatta ctgtcaaaaa gtatttcaga aaatataagc 2460
ttttaaaagta tttattttga agacaaacat tacaaataaa agagggttgt aataccttta 2520
tttgtatcac agatcttatt gtacacattt tgtactagag aaaaccctga agcagttact 2580
taaactttgt tcaacatcag ggaattcaga ttggagaaaa accctgcaga tgtaataaat 2640
ttgaaaaaaa agttttccaa aactacaact tagacaacac cagagggttc atactgagat 2700
atatttttgc agatgcagta tatattttaa acatttaatc caaaataagt ctatgtaa 2760
atcagagaat tcacagtgga aatatctaag gtagggccgg gcatggtggc tcacgcctgt 2820
aatgccagca cttgggacgc tgaggcagga aaatccgttg aaccaggag gcagaggttg 2880
tagtgagccg agattgcacc actgcactcc agccgggtga cagagtgaga ctccatctca 2940
aaaacaaaca aactaaggta tggatgcttc agacattaca ctatatcaa gtgctgactg 3000
ttaaaaatga tcccaaacta acggtagata aatttatattg tacataactt taaaaggagt 3060
agaagatttt ttggaagttt gtaattacat tcaaagtata ctttttttgt ttgtttgttt 3120
tccttgagac agagtctctc tctgtcgtcc aggctggagt gcagtggcac aatctcagct 3180
cgctgcaacc tctgcctcct gggttcaagc aattctcctg cctcagccta ctgagtagct 3240
gagattacag gtgcacacca ccacgtccgg ctgacttttg tatttttagt agggacgggg 3300

ttccaccata ttggtcaggg tagtcttgaa ctcttgacct catgctctgc ccagcttggc 3360
 ttcccaaagt gctgtgatta caggcttaag ccacagcgcc cgacccaaag tggtcttttt 3420
 tccttgaaaa gaagtacaga ttttttaaaa agctaataatt gctgtgattc aactctcaag 3480
 ttacttgatg ctatttcttc atttctattg tattcacatg tgaaagcatg tgatcagttg 3540
 tcacggcatc aaagatagga gagtttcttt ttttttaggt gggcattatt tatgaccttt 3600
 tctttggaag agtaaggaca ttaaaatgta acatgcatga tgaaaatcta agtggagatg 3660
 atatttgtgg ttaattatga tattgagtgg tgcatgaggt aggtgttttag agtaaatattc 3720
 ttttgcatta tagtaagaac atttaagttt tgttaaaatt aaaaaattag tagtacgtta 3780
 ttttactatt tgtactttta tgtaataaaa tgcagtacat ttttaaattt tc 3832

<210> 1452

<211> 3080

<212> DNA

<213> Homo sapiens

<400> 1452

gattgtaagt ttcctgaggc ctccctagaa gctgagcaga tgccagcacc acactttctg 60
 tacagcctaa ggaactatga gccaatgaaa cctcttttct tcataaatta cccagtctca 120
 gatatggagt taccagtaag gagctccacc gtgactctcc tccctgctcc gttgccccga 180
 cgaggaagtg tgaaaacgtt tctggctcca tccaagagtt acttcctga agaagagagg 240
 gctttgttga agtcttccca tgctttctgc acagggtctt ggccttggag aagggtttc 300
 cagttaccgc agtgtcactt ggccctgggt ctctcccgg gagagagaag tgtacggctc 360
 ccaaggttcc tggcagtttt gaaagagctc tcagccacag ccagctttac tttggcaagt 420
 gaggccatcc cttttctttc ctcttttctt ttcccatgga acctactctt tccatctgtc 480
 tttcaagctc tgcctcagaa atggcaattc aaggctgatt ttctccttga atgcactctc 540
 tctgtgaaag aggtttttca ccaagaatgt ggtgctggtg tttctcttgc caatgggcta 600
 aacaaaggcc tccgcaccgg gtaacatttg ggcaggcctc ttcacacatg cctgtccttc 660
 tccgtcgcac ttggctaaag ccaacaacct atgtgtgaaa agtataaaga gatggaaaaa 720

ttcccatgaa aaatccttcc gcaaagcaat tgcgagacaa ctatggcgtc atctgataac 780
atgatttcta ttttgcattt gttccattgt tggagggcac tcatagttgc aagccttgca 840
tgtacatatg taaaaattat aagtgaatgc atctgctcag gttattagcc actgattgtg 900
aaataatctg aagtttgaga gtctcagtta ataacctata ggtgctgaga gcattcaaag 960
acccaatagc ataagtatta atcacctctt ttctccagag tagcaaataa gaaaccagga 1020
agagctcagt ttcacttcca acttgttctt taagggcctc agagttgata gttgtcctca 1080
tctgggctcc ctaatgccac gacaaatcaa ctagaaaaga aatatgcccc aaatcagcac 1140
ccaaacacgc tgggtgccagc ctgtgtccat gttcctgcaa cagctgctgc ccacggggta 1200
ggactgagcc aggtctaaga ttagcagtgt ccagctcct caggttcctg cacattgact 1260
cacaacggaa tcaaaactcg ggagctcaac tctctggttt cttctgcttt ctcttctgca 1320
atcttctttc tttttttttt tttaacttta ttttactggc aaccatgaaa gagatattta 1380
cagcaagact cagagcaagg tcagagaccc ctaaacaggt ggttttcct taacttatca 1440
ggctggagca gagtttaaac caaactagag gaatccctct agctctgggc acaatgtaat 1500
ctctacatcc tggccttcat cgcattggct ggaagctggg tggcttcac caagggccta 1560
cttcgagggg attcatgcct ctgcaagttt gagcatccct cactcctggc gctggcggtg 1620
ccactcagcc acggactgga gcatccactt ggtctggagc ttgtacaaat agtagccata 1680
aaccacgact ttgggtgaggt ctgaagactc cagaggcttc agctcgagca tggccttgct 1740
caccagctca atgtaaggga ttcttcctc gccaacctcc agagagttaa agacatctct 1800
accacccggt ggagaagaaa gctgaccact gctgtgcttc cagaatgcga gaagctcttg 1860
aagcccaaca ttccctttca gtgatattac tgacattttc ccaaagctgt gttcttccga 1920
gctgcacatg gcattgttaa caactatttc ttaaaaacat ttcttttaga gacgggattt 1980
tgccatgttg gcaggttggt ctcaaacttt tgggctcaag agatccaccc tctcagctt 2040
cccaaagtgc tgggattaac aggctgagc actgcgcaac aactattgaa acccttgtca 2100
ggcgctgtt ggaccctgg agcctggtta atgggaacga ccacagtggg catcaaattg 2160
gtaacttcag tacgccagca cggttgagaa ctattgttca acgcgaactt cacatatgaa 2220
gcccctctca tgtgtcaggc acggcgtcag atgtggacg gcaagaaggt ggccttctgc 2280
aaatggggat gagtcctcac caggtgtggg atctgccagc acctcgatct tgggcttccc 2340
agcctcagta ctgtaagaaa gtttcgctct ttcaccagc ctggagtgc gtggcacgat 2400
cttggtcac ttcaacctct gccttcgggt ttcaagtgat tctactgcct cagccttcca 2460

agtagctggg attacaggca cccaccacta tgctcggcta atttttttgt attttcaata 2520
 gtgacagagt ttcacatat tggccaggct ggtgtcgaac tcctgacctc atgatctgcc 2580
 cacctctgcc tcccaaagtg ctgggattac aggcgtgagc catcgcgccc agcccataag 2640
 ttttagtgcc tttttttcat agatgctgaa actgaaaaag ggtgtgggta aataatttgc 2700
 ccaagccagt ctctggcaaa gatgggattc atatccagct actgatgacc aaacatgggtg 2760
 agcaggatc ctatgtcccg aggaagccca ttccacctga gcactggatg gaagggatat 2820
 cgcaatcacc cccatgcatg atggacaggc taggagcat tggacactca atggaaactc 2880
 atgcccctgt cagaaattgg caactgccac ttccacggca cttgcaaact ttgcacactg 2940
 tccagatgtg gcctggcttg ttgctgtcat ggtagcaata gtaattactt aggggatttc 3000
 tgcagatctt gctcatattg tgcataatag ggtataaaat atggaaaatt tgcctctaaa 3060
 ataaagtgtt gctggcaaag 3080

<210> 1453

<211> 3279

<212> DNA

<213> Homo sapiens

<400> 1453

agtagactct attatttcaa gaaagatggc gtggataaac tgtagatgc tgctcagaaa 60
 cacaatagaa catggacaga gaagtgactt gggataaatc gtgttctgt ctatctetta 120
 ctctgggacc accactgagc tcgagactgc cagacacttc tttctaaact cagcaccag 180
 caaaggacct ggcacataat aagtgtcttg gttgtacatg gaggatgacc gaaaaaacca 240
 atggtgtgaa gagctcccca gccataatc acaaccatca tgcacctcct gccatcaagg 300
 ccaatggcaa agatgaccac aggacaagca gcaggccaca ctctgcagct gacgatgaca 360
 cctcctcaga actgcagagg ctggcagacg tggatgcccc acagcaggga aggagtggct 420
 tccgcaggat agttcgcttg gtggggatca tcagagaatg gtccaacaag aatttccgag 480
 aggaggaacc taggcctgac tcattcctcg agcgttttcg tgggcctgaa ctccagactg 540
 tgaccacaca ggagggggat ggcaaaggcg acaaggatgg cgaggacaaa ggcaccaaga 600

agaaatttga actatttgtc ttggaccag ctggggattg gtactactgc tggctatttg 660
tcattgccat gcccgtcctt tacaactggg gcctgctggg ggccagagcc tgcttcagt 720
acctacagaa aggctactac ctgggtgtggc tgggtgctgga ttatgtctca gatgtggtct 780
acattgcgga cctcttcac cgattacgca caggtttcct ggagcagggg ctgctggtca 840
aagataccaa gaaactgcga gacaactaca tccacaccct gcagttcaag ctggatgtgg 900
cttccatcat cccactgac ctgatctatt ttgctgtgga catccacagc cctgaggtgc 960
gcttcaaccg cttgctgcac tttgcccgca tgtttgagtt ctttgaccgg acagagacac 1020
gcaccaacta ccctaacatc ttccgcatca gcaaccttgt cctctacatc ttgggtcatca 1080
tccactggaa tgctgcac tattatgcca tctccaaatc cataggcttt ggggtcgaca 1140
cctgggttta ccaaacatc actgaccctg agtatggcta cctggctagg gaatacatct 1200
attgccttta ctgggtccaca ctgactctca ctaccattgg ggagacacca cccctgtaa 1260
aggatgagga gtacctatt gtcacttttg acttctgat tggcgtctc atctttgcca 1320
ccatcgtggg aatgtgggc tccatgatct ccaacatgaa tgccaccgg gcagagtcc 1380
aggctaagat cgatgccgtg aaactacatc tgcagttccg aaaggtcagc aaggggatgg 1440
aagccaaggt cattaggtgg ttgactact tgtggacca taagaagaca gtggatgagc 1500
gagaaattct caagaatctg ccagccaagc tcagggtga gatagccatc aatgtccact 1560
tgtccacact caagaaagt cgcatcttc atgattgtga ggctggcctg ctggtagagc 1620
tggtactgaa actccgtcct caggtcttca gtcctgggga ttacatttg cgcaaagggg 1680
acatcgga gtagatgtac atcattaagg agggcaact ggcagtggg gctgatgatg 1740
gtgtgactca gtatgctctg ctgtcggctg gaagctgctt tggcgagatc agtatcctta 1800
acattaaggg cagtaaatg ggcaatcgac gcacagctaa tatccgcagc ctgggctact 1860
cagatctctt ctgcttgctc aaggatgatc ttatggaagc tgtgactgag taccctgatg 1920
ccaagaaagt cctagaagag aggggtcggg agatcctcat gaaggaggga ctgctggatg 1980
agaacgaagt ggcaaccagc atggaggtcg acgtgcagga gaagctaggg cagctggaga 2040
ccaacatgga aacctgtac actcgctttg gccgcctgct ggctgagtag acggggggccc 2100
agcagaagct caagcagcg atcacagttc tggaaaccaa gatgaaacag aacaatgaag 2160
atgactacct gtctgatggg atgaacagcc ctgagctggc tgctgctgac gagccataag 2220
acctggggcc caactgcctc tccagccttg gccttgatcc cagaagctag aggagctatt 2280
tagatctccg gatttacatg cattaccctc atgttccctg aattctccca aaagcctctc 2340

tgaccctggg tttttggcct aaacatccaa gattccgcct ccaagtttag cccaagtttg 2400
 tggagagtac aactgcggtt ggctgggctt ccgagagctt cggcctgcct aagtctgagg 2460
 aagggagaag ggggcagctg tctgccagga gtctggctct tttgctcata gcgactcctc 2520
 ccttggttct ggccccgct ttttctaaca tgtcttctga atgcttcctt tttccctgca 2580
 cacgcatgta cttcgagcac cgactataga catttagatc aggtaccagc tgtctgtctc 2640
 ccacgacagg ccaagggatg tgatagtgtt gttgggaggg ggtagaaggg tgcccactca 2700
 gggttattcc tcccccaaca gatgctccag ctctgtctct gtagattgat ctgtctgtct 2760
 gctagccagg atgggatctc tgcagtcttc tgtggaccaa ggagatagac ccggcttctg 2820
 gtccattcca gggcagggag tgaggagcaa ggcaactggc atttgtccac ctggagacag 2880
 aggtagctgg cagctctggc catccctccc ctatgaagag cattcctaaa gaggccctga 2940
 aaactgctgg tgggtggggag actcttcaag ttaatatctg cattagaggc acctatgagt 3000
 taaaaaatc ctttgaacta tctgtggtta ttgctcaact ctgctgttca cattctctcc 3060
 ctcccttcat taatccctct cttttcacca tatggttgct cctcagtatt catcagggat 3120
 tgctttcagg agtcccatg gatacaaaaa tttgtggatg ttcaagtccc tgatacaaaa 3180
 tgacgtcata ttggaatata acctatgcac atcctcccat actttaagtc atctctcgat 3240
 tatttgtaac acctaataca atgtcagtgc tatgtaaat 3279

<210> 1454

<211> 3448

<212> DNA

<213> Homo sapiens

<400> 1454

ttttccagggt aggtggaagt ggaagtcagg gcgcccgaag cccagagctg aatccaagac 60
 ccagggggccc ctctcctctg tggcctcagc tgctgcttcc gccggaggat gaagtgaacc 120
 tgaccagagg actctgagca gagccccctc acctgctctg gaggcattggg tcccacgtat 180
 ccttccactt ggcggatttg tggcacatgc ctgcctgtgc caagcgttgt tctaggcctt 240
 cctgggcgca gcgtctagca gggaagacgg tggcccatgg gcaggtgccg gcaggacaat 300

ggtgggagct caggccccac ggagcaggcg gcctggaggt actcacagac tcatcaggcc 360
atcctggggc cctttgggga gctgctgaca gaggatgacc tggctctacct ggagaagcag 420
attgcagacc tgcagctccg gcgccgctgt caggagtatg agagtgagct gggccggttg 480
gcggctgagc tgcaggccct gctgcccagag cccctgggtca gcatcacggt caacagccac 540
ttcctgcccc gggcgcccgg actggaggtt gaggaggcct caatcccagc ggctgagccc 600
gcagggtctg cggaggcctc agaggtggcc cccgggggtgc agcccctgcc cttctggtgc 660
agccacatct cccgcctggt acgcagcctg tccctgctgc tgaagggcgt gcatgggcta 720
gtacaggggg atgagaagcc atccaccgg cccctgcagg acacctgcag ggaggcctcg 780
gccagcccc ctcggagcga ggcccagcgc cagatccagg agtgggggggt gtctgtgcgg 840
acgctgcggg gcaacttcga gtcggcctct ggcccactct gtggcttcaa ccctggcccc 900
tgcgagccgg gggcccagca caggcagtgc ctgagtggct gctggccagc cctgcctaag 960
ccccgcagtg gcctggcttc aggggagccc aggcctggcg acacagagga ggccagcgac 1020
tctggcatca gctgcgagga ggtgccatca gaggcgggtg ccgcagccgg cccagacctg 1080
gccagcctgc gcaaggagcg catcatcatg ctcttcctca gccactggag gagatcggcc 1140
tacacgccgg ccctcaagac agtggcctgc aggaccctag gagcccgcca cgcgggggtg 1200
cggggccagg agggccgag gagccctggg ccaccctccc cgcccagcga gggccccgg 1260
ctgggccacc tgtggcagca gcgcagcacc atcaccacc tgctgggcaa ctggaaggcc 1320
atcatggctc acgtgcccgc ccggcagctg cggcggctga gccggcagcc ccgcggggct 1380
ttgtccccc agcagttcct gcccacgtg gacggggctc cggtgcccta cagcagcctc 1440
tactggatc tcttcatgct gggttacttc cagctgctgg agtgcgacct gccggcggag 1500
gagcggaagc tgcgccacct gctgtgcttc gaggtcttcg agcacctggg caccacggc 1560
tgggaggctg tgcgcgcctt ccacaaggcc gtgaccgacg aggtggccgc cggccgccgg 1620
gcctggaccg acggcttcga ggacatcaaa gcccgttct ttggctccag ccagcgtccc 1680
gcctgggata cggagcctgg ccgcaagtca ggtctgacct tgctcgggcc cctgcctcac 1740
gccgccgtcc cctgcagcgg cctgagccc acagcacagc ggctggggtc ccgtcccgag 1800
cagggcagct tcaacggtga ggacatctgc ggctacatca accgcagctt tgccttctgg 1860
aaggagaagg aagctgagat gttcaacttt ggagaatgac cctactggca gcctgcttcc 1920
cagaatgtgg tttgggggtg acttgaggtt tctcttttct tttccttgct cacacccttg 1980
gtgttcaggt gagccgggca aggctgcctc cagtccctacc agttatcgga ggctgcggga 2040

ctgtttctgtt gtggcatggt tctcctccga gctgggactc agactccttc tcaccactgc 2100
 acccaggaag ccccttggca ggtcctgaag tgaggcaatg ggccacccca gtccagggca 2160
 cctctgcca gccggcccc gagacctggg atgctgcctg tttctcactt gtccttcccc 2220
 agtgtcacca gttcccttgg cgtcctgtcc ctcagtttct gtggtgctgg tggcctcggc 2280
 cacatccatc tttcatgtga gtctgaggtg gccccaggcc ctggtcctgc ccctgtttct 2340
 cctgctgacc ttgggtcaca ccccttcacc tcccatctgt gaatttgggg gagctggagt 2400
 gattccgagg acagattcca tgggcaggag gccttcctgc caggccatcc ctgctggtca 2460
 cacaccgatg cccgccaggc cagtgcacca gcccagggtg ctccggaggc cctgcttctt 2520
 caaaggaggc tccccatggg gccctgtcc tccagcctga ccagccctgg cctagtcgtg 2580
 ggccccagca aggctggaga gcagggacgt gggagtagca gtggctgaga gagtccctca 2640
 ggcagggtgg ctggtgcca ctctcaaagg ctgctgcaca cagaggagaa tgccggcagg 2700
 ggtgggcagc agccagacct cagtggggcg tggatactcc gtgagggcac ctgggtgtca 2760
 cccacagtgc acctcttcac aggggcctgg gtactggagg gagggataca ggaagggaga 2820
 tggattccgt cctcgggggc tctgggtgct gcggagtatt cctgggcatg gtgctgggca 2880
 tggctggcat aggggtgtggc ttgtccccag cttctgatgg cagccaggag aatgggtcat 2940
 caccaggtct ctggggctga ggagggtgg gcccaagccc acagggactt tggaggtggg 3000
 gctctgcagc tgtgagatgg ccagcaggg agtggcaggg acgggaggct tcaggaatat 3060
 tctcctggc atccaggccc cctgggacag aggagggtgc agtcaggcga caggcttata 3120
 aggactccct gcctcaatcc ctggggattg tccaggcaaa acctggaggg cagcgggcaa 3180
 gctgttggat ggaacagaga gaccctcgca gctgactagg gcccaagggg acggacactc 3240
 aagaagatgt aaaattggga ggggtggtat tggccattgg ggcaggcagg gccgggaagg 3300
 gaagtagcac cggccgcagc cccaagccag tggcttttcc acaagggcct atcctgcagc 3360
 cggccccgctc cggcttcctc cactgctgaa gaccctgctg tagagctgaa gctgaacatg 3420
 tgtttgctaa ataaagattc ccattcct 3448

<210> 1455

<211> 4292

<212> DNA

<213> Homo sapiens

<400> 1455

atttgcaatg	aaggtgccaa	gaatatacac	tggggaaagg	acaagtttct	tcaacaaatg	60
atgctgggaa	aactgaattt	gcagaagcgt	gaaagtaaac	ccctatctct	cacatataca	120
aacaataaat	caaaatggat	taaaggctta	aatataagac	ctcaaactat	aaaactgcta	180
taagaaaata	ttgaaaaaac	tctccaggac	attgggtctgg	gcaaagattt	cttaagtaat	240
actctcaatc	acatacaacc	aaagcaaaaa	tgggcaaatg	ggacaacatg	aagttaaaaa	300
gcttctgcgc	agcaaaggaa	acagtccaca	aagtgaagag	agaaccacaca	gaatggggaga	360
agatatattgc	caactacccc	tctgacaaag	gattaatcac	cagaatatat	aatgaattca	420
aacaacacaa	tagcaaaaaa	tccaatagtc	tgagtgaaaa	aaggcaaact	ataatttgga	480
gatcatggca	gatgggaggc	aagactagat	ttcagctccc	actcagacag	acaggacagc	540
gtgtggagtc	tcgcattgtg	aactttttct	ccagaacgtc	tgacaggaata	cactaggaaa	600
gccaaagagaa	cccacagatc	ctctgaagga	agtggattgc	tcctgcagga	cctgggagac	660
accccaaata	ctgtgagtgc	ccaaactgtg	gaagtgggaa	aggagatca	tctgcccctg	720
aacacacaca	ccccactggg	gaatctgagg	tctagattat	gtgagaagat	tctgacctta	780
ctgggaacgg	agtcaattta	gagagccaag	caaaatacag	gggtagagga	agcagcagga	840
aaatccctgt	gagcttgctg	ggccccctag	caagccattt	ctgcctcacc	tctcaggggt	900
ctttgaggag	ggctgccaga	ggcactggga	agtgtcctag	ggaggaagaa	acctccagct	960
gaactttgta	acaatttgaa	cccatagaga	agtctcctgg	ccagaacttt	ggggagggcg	1020
tgaatccagc	atgcagactc	cataggccag	aaaagaagga	aagccatatt	tgctttcaca	1080
gctgggaggt	gggtggcctg	gggcaagtta	tcagccctgc	tcaccactg	cctggaaaca	1140
gactcagtgc	tgttggcagg	ggcacagtgg	gagtgcacaca	ggccgtttgg	ggtgcatggg	1200
agctgggtga	agcctgtgac	tgctggcttt	ccccacttc	cctgacaacc	tgaggacac	1260
agtagaggca	gccataatcc	tcctaggaac	acaactccat	tgacctggga	agctttcccc	1320
tatctcccac	agcagccaca	gcaagaccca	tccaactaga	gtctgagctc	agacatgact	1380
aaccctgccc	ccacctaattg	gtccttctct	accaccctg	gtaactgaag	aaaaaggtta	1440
tataatctag	ggagtthtag	ggccctgtcc	accgcctgtt	cctccccata	ctactacagc	1500
tgatgctctc	ttgaaagtgc	cacctcctgg	caggaagcca	accagcaca	aatgtgcact	1560

catcaaccaa agcttagaac cctcacagag tccacttcac acccttgcta cctccactga 1620
agcaagtgtt gagagacccg caggtgggtt acatcacagg actctaaaga caaccacag 1680
taccagccca gagcctggta gacttgctgg gtggctagat ccacaagaga gataacaatc 1740
actacagctc agctctcagg aagtcacata cctaggaaaa ggaggagagt actacatcaa 1800
ggaaacgccc cgtgggacaa aagtatctga acaacagcgt tgagcactag accttcctc 1860
tgacagaacc tacccaaatg agaaggaacc agaaagccaa ctctggaaat atgacaaaac 1920
aaggttcttt aacaccctca aaacaccaca ctagctcact agcaatggat ccgaacaaag 1980
aagaaatccc tgatttacct gaaaaagaat tcaggttagt tattaagcta atgagggagg 2040
caacagagaa aggcaaagca caatgtaagg gaataaaaaa aaatgatata agaagtgaag 2100
ggaaaaacat tcagcgaaat agcataaata aaaaatcaaa acttcagaaa acaatgggca 2160
cacttacaga aatgcaaaat gctctggaaa atctgagcaa gatttcaggt ccaggaagac 2220
tggtgagcag gtgtcagaga gacttggtgg gttgtcatca agtaggacta cccttgaacc 2280
tgtgcaaaag agacactaac ttggtgagct ccttctcaaa ggaacatata gggccacagc 2340
tggtctttac tcataagcac catctactgg tctttaggcc agactgcaca gccaatata 2400
aaacctgcct aggaaagtgc atagcctaag accctatcca gcataattcta cagtcacaca 2460
ccctaggaag gggaggaaat gtcaagaaaa aaatatataa agaaacaaac aaaaaatcct 2520
atctgcatga aaataattac gaatattaga agtgtcagtc tttccagatg agaggggaaga 2580
agtgtaaaga ttctgagctg tgaaaaatcc aaatgtgacg acactatcaa aggatcacac 2640
tagctctcca gcaatggtcc ctacccaaaa tggaaagtca gtaatgacag ataaagaatg 2700
caaacaatga gatatcatct tacaccaggc agaatggcta ttattaaaaa gtcaattttg 2760
gtgaggatgc agagaaaaag aatgcttata cactgttggt gggaatgtaa attagtacaa 2820
cctctatgga aaacagtatg gagatttctc aaagaattaa aaatagaact actattagat 2880
ccaacaaccc cactactgga tatctacca aaagaaaaga aatcatcata tgaaaaagat 2940
acctgcactc atatatttat cacagcacta ttatcaatag caaagatttg gaatcaacct 3000
aagtgtccat ccacaggtca atggataaag aaaatgtggt atatatacac aatggaataa 3060
tattcagcca taagaaagga tgaagtcag tcttttgag aacatagatg gaactggagg 3120
ctattacctt aagtgaaca aattagacc agaaagataa ataccacag ttctcactta 3180
taagtgggag agaaataatg tgtacagtgg gcatacagtg ttcaatagca gacactggag 3240
acttgggaagg atgggaggct ggaaaggggg tgagggatag gaaactacgt aatggataaa 3300

atattatttg gatgatggtt acactgactg ctcagacttt accactgcac aacctaccca 3360
 tgtaagaaaa ctgcacttct acctgttgta tttatacaaa taaaaaagga gaaaaagatt 3420
 atttcttagt caaattactt gtttaggggc ctttaaggaa aacaactttg catccaacag 3480
 ttgggctgca ctgtgaaaaa aaaattattc ttcaaggaca cagtttatag aaggctacaa 3540
 caaaagacat ttaaaggcta ttctgctatc tatattatga tggaggtctt tgcaatctgt 3600
 gtcataatga ttaactttga gaattttact gtagtcagtg atacggtttg gatctgtgtc 3660
 tcatcgaaac tcatgtcaac ttctaattcc cagtgttggg aatggggcct ggtgggaggt 3720
 ggtttgatga tggagggtgg atttttcatg aacgtttagc aacatcccct tgggtgctgtt 3780
 cttgtgaaag tgagtgagtt cccatgagac ctggttggtt aaaacagtgc agcatctcca 3840
 gtcaatggaa tattggagta tacatgtcaa aataaagacc agtattacc ttaggaata 3900
 ttcttggtgc tcaaaataat tttccaacaa atacaaagtt ccctaaacac cgtcctctga 3960
 gcctcctgtt tcaagtttat tcccattatg tctgtcatag caaggttcag cccaagtccc 4020
 aaattcttac tgccctggaa aactgagact atatttatat tttatatgca aaaaaggagg 4080
 ctctgatacc ttggcttggg taaaggaaca atggaagaca tttaattttc tttgtttact 4140
 ttcctctgtt actttaaaaa taactccctt attatgggtt tccagaattt gaagaaagca 4200
 tacatattca ctcaacatgc cacaaaaatt tcatagggtt tgagcatgta cctgcccaga 4260
 tattatcttg ccatattaaa gtctgctaatt tt 4292

<210> 1456

<211> 4748

<212> DNA

<213> Homo sapiens

<400> 1456

gtgtttgtgt atgtgtgtgt tgtgtctgtg catgtgtctg tgtgtctgtg catgtgtgtc 60
 tatgtgcatg tgtatgtgtg tctgtgtctg ttcgtgtgtt gtgtttatgt ctgtgttatt 120
 tatgtcgtgt gtgtgcgtgt gtatgtttgt gtgtctgtgt ttgtgtgtgt gttgtgttta 180
 tgtctgtgtt atgtcgtgtg tgtctgtgca tgtgtatgtg tgtttgtgtc tgtgtgtgtc 240

tttgtgtgtg tgtttgtgtt tatgtctgtt gtgtgtgttt aggtctgtgt tgtgtgtgtt 300
gtatgtgttg tgtgtgtttg ggtgtgtgtt gtgtgggttg tgtgtatgtg ttgtgtatgt 360
ttatgtgtgt gttgtgcatg ttgtttgtgt ctgtgtgtat gtatgttgtt tgcgtgtgtg 420
tgggttttgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgatgtgtg tatgattcct 480
gtgttgggat caggtagatg cgggtgatgt gactaagatc tggggccatc tcttagggat 540
ttaatggctt cttgaggaga gacagtcata gggaagtcc gtcaggggggt tccccagacg 600
ggggctagag ggaggtggca ctggactctg cgtgggggtc ctggggaaga cttcaccgga 660
ggcgcaggcg cagtgggagc cgaacattga aggagaattc cccagccttc tgcattccagg 720
cagaggaccc agcatgtgca aagcatgggg ttaggaaggt gagccaggca tggcaggaag 780
gcctgtgcc a tgctcaagt tgaacttgg tttgaagaac aaggaggag tgaggtggtc 840
atccactttc cctgtctccc tactccctga ccctttctgc acctgccctc ttccttccca 900
gtcaaaaggg gtaggaaggg ctctctctgg gccataaaaa gaaatccaag caagatgtcc 960
tggggacaga ggcaagagca atgagttcca tccaatctgg gatgtctgga acgatccacc 1020
gaggaggtgg tgatgcttga gctgaacctt gaaagatgca tggatgggga aaatggagtt 1080
ctcccagctg agcaaacagc acctgggaag gctcagaagc tgaggggccg gaggggtggg 1140
cagtgaggtg ggaaacgcgg gtggagccag gttgtggaag ccttcctcat gctgggttag 1200
ggagctgtgg gttttattct gtgcttaggg ccgcatgaa tccagactgt gccttttttt 1260
tttttttttt tgagacagag tctcgctctg tcaccaggc tggagtgcag tggcgcaatc 1320
tcggctcact gcaagctccg cctcccaggt tcacgccatt ctctgcctc agcctcccaa 1380
gtagctggga ccacaggcgt ccgccaccac acccggttaa ttttttgtat ttttagtaaa 1440
gacaggtttt caccatgtta gccagggtgg tctcaatctc ttgacctgt gatccaccg 1500
ccttggcctc ccaaattgct gggattacag gcgtgagcca ccgtgccgt cccagactgt 1560
gcctttttta gatgagcaaa aggcacctt ccctgtgggc aggcagcatt tcatgcaggg 1620
tgcagtgtgt gggcctgtgt ggggaaaggg gactcccggg cggccacaat ccgtcaaca 1680
tctgcagccc tggttgcatg tcacaggagg tgtttgaaca gggtttgtgc cttgtgtga 1740
tcatttgaaa atggagggtg ggttcgagt tggagtgggc aggcgaggag atgaggagga 1800
cagacagggc tgggcgggac ctgacgtccg gatgggcctt cccggggaag ctgagctgac 1860
gtccagatgg gccctctcag ggaggctcgc ttagaccgtg gaccagaatc atgtggagag 1920
aggagcaggg aggtttctcc cggggaatga cttgagccac ccaggggaga ggctgtgtctg 1980

ggcccagggt gactggccag ctggagccaa gggtagggga gtgagcacga ggccacagcc 2040
ctgagcatgt tcctgacttt tcccttgccc acctgttcca gagctggggg acctccctct 2100
gggccgcctg gatttctcct gtaaccgcgt ctcccgaatc ccagtctcct tctgccgcct 2160
gaggcacctg caggtcattc tgctggacag caaccctctg cagagtccac ctgcccaggt 2220
gaggcgggtg cctggggggc cacgaggaca ggggtgtggc taggcaggag tggggttgg 2280
ccccttggat agctgagcag gatccgggga gctgccctcc ctgccaactc cctggcgtgt 2340
gctgccccgc acacaggtct gcctgaaggg gaaacttcac atcttcaagt atttgtccac 2400
agaggccggg cagcgtgggt cggccctggg ggacctggcc ctttctcggc ccccgagttt 2460
cagtccttgg taagtcctag gtggggagga aggaagccct gggatactga atgccccttc 2520
ccggccccag gcacccctg ctttctggca ggaggatggg gggctgttgt ccagcatcag 2580
gctgaccaga tccgcctggc tggccccagc cctgcagagg atctatttcc gggacatcgg 2640
tacgatggtg ggctggactc aggccttcac agcgttgata gtggcagcaa gaggtggtct 2700
ggaaatgagg taagggcgtc ctgtccatgg gtgattgagg gtgtcagccc tgggagagca 2760
cctctgaact ggggacctcc aaattgcagg gtgccaggca gaggtggag ctgtcctctt 2820
ccttccctct gccagcatc ccagggaagg gctggctcag cagagacct gagcttagtc 2880
ccacacagga cccccaggt cctgagcccc catgtacaga gaggccatct cccatctctg 2940
cctctgcctt tacagtcaac agatgaattt tcagagctgt cattccgat ctgagagctg 3000
gcccgggagc cccggggggc cagagaacgc aaggaggatg gctcagcgga cggagacct 3060
gtgcagattg acttcatcga cagccatgtc cccggggagg atgaagagcg aggcactgtg 3120
gaggagcagc gaccaccga attaagccct ggggcagggg acagggagag ggcaccaagc 3180
agcaggcggg aggagccggc aggggaggag cggcgggcgc cggacacct gcagctgtgg 3240
caggagcggg aacggcgga gcagcagcag agcggggcgt ggggggcccc gaggaaggat 3300
aggtgggacc cagggccgcc cggggctgtt gctggacact gagccctgga aatggggcca 3360
ccgagccccg ctgagccgtt ctgccttggg gctagctgac cccacctctc cttgttccag 3420
cctcttgaag ccagggtca gggctgttgt gggaggggcc gccgccgtgt ccaactcaagc 3480
catgcacaac ggctcgcta agtccagtgc ctccaagca ggggctgcag cggggcaggg 3540
ggccccgcc cctgcccctg cctcccaaga gccccttccc atagctggac caggtgggac 3600
agggattttg ggaggaggat ggggcctgtg ttggtgaggg ctggttggga gagagggaca 3660
cagaggggat gcctgtctca cctgcccctg tcgtgtgtc cctggttccg gccccagcga 3720

cagcacctgc tccacggcca cttggctcca ttcagagacc aaacagcttc ctcttccgtt 3780
 cctcctctca gagggtgctca ggcccttctt caccagactc tgtcctgaga cctcggcggt 3840
 acccccaggt tccagatgag aaggacttaa tgactcagct gcgccaggtc cttgagtccc 3900
 ggctgcagcg gcccctgcct gaggacctgg ccgaggctct ggccagtggg gtcctcctgt 3960
 gccagctggc caaccagcta cggccgcgct ccgtgccctt catccatgtg ccctcccctg 4020
 ctgtgccaaa actcagtgcc ctcaaggctc ggaagaatgt ggagagtttt ctagaagcct 4080
 gtcgaaaaat ggggggtgcct gaggctgacc tgtgctcgcc ctcggatctc ctccagggca 4140
 ctgcccgggg gctgcggacc gcgctggagg ccatgaagcg ggtggggggc aaggccctac 4200
 cgccctctg gccccctctt ggtctgggcg gcttcgctgt cttctacgtg gtcctcatgc 4260
 tgctgctcta tgtcacctac actcggtcc tgggttccta ggccccaaaa tcggccctcc 4320
 ctcacccctt tcccttctc tctatttata aggtccctgc tccacccgac cccacctgcg 4380
 gtgccttcag ccccaaccaa agacactagt gcacccctt cacagacact gacctcagag 4440
 gccccactct ggtgccccca gacctgggc cccagcctc tggcctcct ccagtagccc 4500
 cacgagtcac cactctcag tgctgacggt gccttcatgt ccccgccggc cctgcccctg 4560
 ccctctgtac ccggtgaggg gtggcaggag ctggagtctc ccccttctc ctgtgccctc 4620
 cccttcccc cccaacagct gctatggggg ggctaaatta tctctatttt gtagagagga 4680
 tctatatattg taggggttcg gggcccaggc cgggtcccta tctctgtgta taaactgtac 4740
 agaccgtg 4748

<210> 1457

<211> 3678

<212> DNA

<213> Homo sapiens

<400> 1457

gcaaaagcat ttcagaaaga ggggagagca ggagcataaa ccctgaggtg gagcatgcct 60
 ggtaaagtgt gaggaacact gaggtcagtg caactgaagt ggaatgaaac acagctggaa 120
 aattaggggc ctgtcgagcg atgttggaag aagaaacaga tcaaactat gagaatgtcc 180

tggtcgagat tcagtccttc gaactgccta ttgaagctac tttaaggctc gtgtatgatg 240
accaacccaa tgcgcacaag aagtttatgg aaaagttaga tgcttgtatc cgtaatcatg 300
acaaggaaat tgaaaagatg tgtaattttc atcatcaggg tttttagat gctattacag 360
aactccttaa agtaaggact gatgcagaaa aactgaagg gcaagttact gataccaacc 420
gaaggtttca agatgctgga aaagagggtga tagtccacac agaagatatc attcgatgta 480
gaattcagca gagaaatatt acaactgtag tagaaaaatt gcagttatgc cttcctgtgc 540
tagaaatgta cagtaagctg aaagaacaga tgagtgccaa aagggtactat tctgccctaa 600
aaactatgga acaattagag aatgtgtact ttcctgggt tagtcaatac cggttttgtc 660
agctcatgat agaaaatctt cccaaactcc gtgaggatat taaagaaatc tccatgtctg 720
atctcaaaga ctttttgga agtattcgaa aacattctga caaaatagg gaaacagcaa 780
tgaaacaggc acagcatcag aaaaccttca gtgtttctct gcagaaacaa aataaaatga 840
aatgtgggaa aaatatgtat ataaatcgtg atagaattcc agaggaaagg aatgaaactg 900
tattgaaaca ttcacttgaa gaagaggatg agaatgaaga agagatctta actgttcagg 960
atcttgttga tttttccct gtttatcgat gtttgcacat ttattctgtt ttgggtgacg 1020
aggaaacatt tgaaaactat tatcgaaaac aaagaaagaa acaagcaaga ctggtattgc 1080
aaccaccagtc gaatatgcat gaaacagttg atggctatag aagatatttc actcaaattg 1140
tagggttctt tgtggtagaa gatcacattt tacatgtgac ccaaggatta gtaaccaggg 1200
catacactga tgaactttgg aacatggccc tctcaaagat aattgctgtc cttagagctc 1260
attcatccta ttgcactgat cctgatcttg ttctggagct gaagaatctt attgtaatat 1320
ttgcagatac ttacagggt tatggttttc cagtgaaccg actttttgac cttttatttg 1380
aaataagaga ccaatacaat gaaacactgc ttaagaaatg ggctggagtt ttcagggaca 1440
tttttgaaga agataattac agccccatcc ctgttgtcaa tgaagaagaa tataaaattg 1500
tcatcagcaa atttccctt caagatccag acctgaaaa gcagtccttc ccaaagaaat 1560
tccccatgtc tcagtcagt cctcatattt acattcaagt taaagaattt atttatgcca 1620
gccttaaatt ttcagagtca ctacaccgga gctcaacaga aatagacgat atgcttagaa 1680
aatcaacaaa tctgctgtg accagaactt tgagtagctg tttactgaac cttattagaa 1740
aacctcatat aggtttgaca gagctgggtac aatcatcat aaacacaaca cacctggagc 1800
aagcttgtaa atatcttgag gactttataa ctaacattac aaatatttcc caagaaactg 1860
ttcatactac aagactttat ggactttcta ctttcaagga tgctcgacat gcagcagaag 1920

gagaaatata taccaaactg aatcaaaaaa ttgatgaatt tgttcagctt gctgattatg 1980
actggacaat gtctgagcca gatggaagag ctagtgggta tttaatggac cttataaatt 2040
ttttgagaag catctttcaa gtgtttactc atttgcctgg gaaagttgct cagacagctt 2100
gcatgtcagc ctgccagcat ctgtcaacat ccttaatgca gatgctactg gacagtgagt 2160
taaaacaaat aagcatggga gctgttcagc agtttaactt agatgtcata cagtgtgaat 2220
tgtttgccag ctctgagcct gtgccaggat tccaggggga taccctgcag ctagcattca 2280
ttgacctcag acaactcctt gacctgttta tggtttgga ttggtctact tacctagctg 2340
attatgggca gccagcttct aagtaccttc ggggtgaatcc aaacacagcc cttactcttt 2400
tggagaagat gaaggatact agcaaaaaga acaatatatt tgctcagttc aggaagaatg 2460
atcgagacaa acagaagttg atagagacag tcgtgaaaca gctgagaagt ttggtgaatg 2520
gtatgtccca gcacatgtag acctcacatg gcttgcactc agtgacacca aatccatgat 2580
tcaatgttga tcttgagcaa gtattgggtca tgatacagta atttgtttac agaatccaaa 2640
aatacaatag agaagataca tgagggttta aacaagaaat agtaataaat atcatttgta 2700
tggattttta aataatcgaa tactatttta tatatggaaa aaaatgacca ttttttact 2760
tttaggggaa aatgcaaaag tgtaatacat aaattgtcac aaattatacc tgaaattgat 2820
tacaataca tttgaaaaac atatgcctct actcataagt attttttct atttagactt 2880
gaatgataat ctgttttttg atcagtatat ggcttttgaa ttcaatcatg tccgatatgg 2940
tagtatttca ctaccatttt ctgactttta gcttttatit tcacctcaat gtgatttaag 3000
cagacaaaaa tttctaattc tgctaattct gaaggggaaa tagacaaatc ttaaaagctg 3060
cctgaaatca aacttgattt aactcagtaa gaatgtgaat tatttgttct acttgggtgg 3120
tttaatttaa tcgttctgaa tatgaacaaa aggttttgga ttttctaaag atgcagtgtt 3180
gtttctgttc atcagggtta atatttctaa ctatattgct tgtaggtgac cccattctgg 3240
atttgtttgg tttggtttgg ttccagttaa aagagaggac aggaactaaa tggggctaac 3300
cacttcaggt gcagcttgtg cgagggtaga tggttcctgc acacagaagt taccacaggg 3360
gtcaggttac tttcttcaaa tagcagattt cagtacttta tcctcattgt ggaaacaagc 3420
caaaccaaat gaactctgga aaacctaaaa caaatgtaca ttttcctttg tgtatgtttc 3480
tgtgggtcaa atggcaatat aaatccagtc tttattctcc ctttgttgta tttatgctga 3540
atcttccctt tgccttttca ggatttaggc ctgtaagaaa ctatgcctga ttctgtaaaa 3600
taagtgtaaa gaattatatg tacatctctg gattttgtga tgaaatatta aaaatattga 3660

gcaagttgtt gaaaatgc

3678

<210> 1458

<211> 3597

<212> DNA

<213> Homo sapiens

<400> 1458

gagacacagt ggggtgtccga ggggggggctc tgcgtccgga ggcgagacgt ccgaggtcag 60
aggggaggag acggacccga ccttccttgg ctgtgctctc cagccctgtc ctgtgctgga 120
cccaacctaa cctctgcagc ctccctgccc tggacacaaa tctggctgag accccagacc 180
ctgatggggc agagcctggc actggaggag ccaccaggat gggcccctgt ggggtgtgggc 240
agagggtgat cctcagttca ggtttttgcc agaagatggg ttcctgcagg aggggggtctc 300
agcagctcag acttcagatg cgctcactgc tgctcactgt gggacagcca gacacggagc 360
cctctgttct ccagcagttg tggacaatga gggatccctg gagggatgcc tggtgggcag 420
caggagtccc tcttgtgggt cagggtgcgg ggatgggctc tccctgcagg gacttccag 480
tcttgtcctc tgggattggc agtttgcagg ggtatcctcg gcatcagacc agggggggcca 540
cacagggacc cagatctatg gggcccagcc ccgggaagac cagatgggct cagtggagaa 600
gctgaccaca tctgctttcc ttccagccaa accggggagc gtcccggcac ccaggcctct 660
gcgggtaacc ccaggcatca agaccctccc tcaaggggag gagctggctc tcccctgccc 720
atcagcacag ctccagaatc ccaaggggtc agctcccaca tgggggcctg gtcctgccac 780
aactggcct agctgggctg tccccagggc caaggcctag cggcatgagg gggcttccgt 840
ggagcccagg gcagtgggct gctctctgga gtccctagga ctcggggtgt ggctggcctg 900
tccccagatc aggacacacc ccaggttgctc cagtgggttc cgtgctggaa ctctgttgga 960
agccacccag ggacctggat gcttcccaca gttcagcatg gagcaggggt gctgggccct 1020
gaccctcca cgtctgtcct ggacacccca ggaccacagc acaggcccag ccctgcaacc 1080
ccagcggggc cctgatacca ggccctgccc agccccgtaa tgaccaagag gcaggtccag 1140
agatacctcc tgcacagggt cacctgcata tgacgcccc agcaggcagt gaccagcacg 1200

gtgtggaagg agccagggtg gcacccggca gccctagagg gctcctggcc tcgggaagtc 1260
tatcgatggg gaagctggtc actcggaggc tgctggggag aagggggagt gtggcattcc 1320
ctggacagaa gggcaagtgt ggcgtcccct ggagagaagg gcgagtgtgg cgtcccctgg 1380
agagaagggc gagtgtggcg tcccctggac agaaggggga gtgtggcgtc ccctggagag 1440
aagggccagt gtggcgctcc ctggagagaa gggggagtgt ggcgtcccct ggagagaagg 1500
gcgagtgtgg cgtcccctgg agagaagggg gagtgtggcg tcccctggag agaaggggga 1560
gtgtggcgtc ccctggagag aagggggagt gtggcgctcc ctggagagaa gggggagtgt 1620
ggcgctcccct ggagagaagg gggagtgtgg cgtcccctgg agagaagggc gagtgtggcg 1680
tcccctggag agaaggggga gtgtggcgtc ccctggagag aagggcgagt gtggcgctcc 1740
ctggacagaa gggggagtgt ggcgtcccct ggagagaagg gccagtgtgg cgtcccctgg 1800
agagaagggc cagtgtggcg tcccctggag agaaggggga gtgtggcgtc ccctggagag 1860
aagggggagt gtggcgctcc ctggagagaa gggggagtgt ggcgtcccct ggagagaagg 1920
gcgagtgtgg cgtcccctgg acagaagggg gagtgtggcg tcccctggag agaaggcca 1980
gtgtggcgtc ccctggagag aagggcgagt gtggcgctcc ctggacagaa gggggagtgt 2040
ggcgctcccct ggagagaagg gggagtgtgg cgtcccctgg agagaagggc cagtgtggcg 2100
tcccctggac agaaggggga gtgtggcgtc ccctggagag aagggccagt gtggcgctcc 2160
ctggacagaa gggggagtgt ggcgtcccct ggagagaagg gcgagtgtgg cgtcccctgg 2220
agagaagggc cagtgtggcg tcccctggac agaaggggga gtgtggcgtc ccctggagag 2280
aagggccagt gtggcgctcc ctggagagaa gggggagtgt ggcgtcccct ggagagaagg 2340
gggagtgtgg cgtcccctgg agagaagggg gagtgtggcg tcccctggag agaaggggga 2400
gtgtggcgtc ccctggagag aagggcgagt gtggcgctcc ctggagagaa gggggagtgt 2460
ggcgctcccct ggacagaagg gggagtgtgg cgtcccctgg cgagaagggc gagtgtggtg 2520
ttcgctggag agaaggcgga gtgtggtatt ccctggacag aagggggagt gtccctgcag 2580
ccctggccag ccagcggcat gccctgctag ctctcccca acctcaggga tagggaaccc 2640
tgacagggca caagtccccg tcccagaggg gcctggccca gcctcaaccc gggccctggg 2700
aggggagggg caccaggggc gctgtgggcc ccagcagaa gccaggatga ccacacaggg 2760
gactgagctg tctgtggctg tggccagacc tagaacttgg cccaaggcag ggcaagcccc 2820
ttggagcaga gtgggtggca gagcctgtgt ataccagca aggctgagcc agtgacacta 2880
ccaggctcca agagcaacca gccatgaagc aggcgtgggg caagggtagg gtgagggcag 2940

gggcggggga gagtggggca ggagcagacg gaccagctgc caacctcgtc cactccagga 3000
 ggcaggggatg gccaggctcc cacgccctac tggccgctac ccgaccacca atgaggcaga 3060
 ggcctgaggc cagtcggtgc tggagcccta ctccaaggt ccacagaccg cttcaggcca 3120
 cagagccgaa gaaaactggg catgtgaagg cccaggaggc ggggtcccta tgtctgcat 3180
 tcttggcagg tgcatttcac gctgggagca agtcaggaaa ggtgatgcct ctcaccgcca 3240
 agaaggctcc cagcagagac cagagccacc ggcacagatc cccaaccct gaaaccacct 3300
 ccctctggag gaccaggacg ccctcctagt tggtagaagc acagtaagct ctctgtcctt 3360
 atgatctgcc tgcttgtcca gagctctctg ccagaagccg tggacactgg ggcaggcggg 3420
 aggagagagc accacagccc agaccctga ccggcctctc ccaacctccc cctcccaaag 3480
 gctatggaga gcccagggt ggacaggcct gaggttccga catacctcat gccaggccac 3540
 acgcgcaccg tgtcccaccc tcagccgaaa accaagatca agaccatcca ataattt 3597

<210> 1459

<211> 3140

<212> DNA

<213> Homo sapiens

<400> 1459

atgtggacga atgtcgccgc gtgccccgc cctgtgctcc cgggcgctgc gagaactcac 60
 caggcagctt ccgctgcgtg tgcggcccg gcttccgagc cggccacagg gctgcggaat 120
 gcctggatgt ggacgagtgc caccgcgtgc cggcccggtg tgacctcggg cgctgcgaga 180
 acacgccagg cagcttcctg tgcgtgtgcc cggccgggta ccaggctgca ccgcacggag 240
 ccagctgcca ggatgtggat gagtgtgccc gaagcccccc accctgcacc tacggccggt 300
 gtgagaacac agaaggcagc ttccagtgtg tctgccccat gggcttccaa cccaacactg 360
 ctggctccga gtgcgaggat gtggatgagt gtgagaacca cctcgcatgc cctgggcagg 420
 agtgtgtgaa ctgcgccggc tccttccagt gcaggacctg tccttctggc caccacctgc 480
 accgtggcag atgcactgat gtggacgaat gcagttcggg tgccccctccc tgtggtcccc 540
 acggccactg cactaacacc gaaggctcct tccgctgcag ctgcgcgcca ggctaccggg 600

cgccgtcggg tcggcccggg ccctgcgcag acgtgaacga gtgcctggag ggcgatttct 660
gcttccctca cggcgagtgc ctcaacactg acggctcctt tgctgtact tgtgcccctg 720
gctaccgacc cggaccccgc ggagcctctt gcctcgacgt tgacgagtgc agcgaggagg 780
acctttgcca gagcggcatc tgtaccaaca ccgacggctc cttcgagtgc atctgtcctc 840
cgggacaccg cgctggcccg gacctgcct cctgcctcga cgtggacgaa tgcgcgagc 900
gaggcccagc cctgtgcggg tcgcagcgt gtgagaactc tcccggctcc taccgctgtg 960
tccgggactg cgatcctggg taccacgcgg gccccgaggg cacctgtgac gatgtggatg 1020
agtgccaaaga atatggtccc gagatttgtg gagcccagcg ttgtgagaac acccctggct 1080
cctaccgctg cacaccagcc tgtgaccctg gctatcagcc cacgccaggg ggcggatgcc 1140
aggatgtgga cgaatgccgg aaccggctct tctgcggtgc ccacgccgtg tgccagaacc 1200
tgcccggctc cttccagtgc ctctgtgacc agggttacga gggggcacgg gatgggcgtc 1260
actgcgtgga tgtgaacgag tgtgaaacac tacagggtgt atgtggagct gccctgtgtg 1320
aaaatgtcga aggtccttc ctctgtgtct gcccacacag cccggaagag tttgacccca 1380
tgactggacg ctgtgttccc ccacgaactt ctgctggcac gttcccaggc tcgcagcccc 1440
aggcacctgc tagccccgtt ctgcccgcca ggccacctcc gccaccctg ccccgccgac 1500
ccagcacacc taggcagggc cctgtgggga gtgggcgccg ggagtgtac tttgacacag 1560
cggccccgga tgcattgtgac aacatcctgg ctcggaatgt gacatggcag gattgtgtct 1620
gtactgtggg tgagggtctg ggcagcggct gccgcatcca gcagtggccg ggcaccgaga 1680
cagctgagta ccagtcattg tgccctcacg gccggggcta cctggcgccc agtggagacc 1740
tgagcctccg gagagacgtg gacgaatgtc agctcttccg agaccagggtg tgcaagagtg 1800
gcgtgtgtgt gaacacggcc ccgggctact catgctattg cagcaacggc tactactacc 1860
acacacagcg gctggagtgc atcgacaatg acgagtgcgc cgatgaggaa ccggcctgtg 1920
agggcggccg ctgtgtcaac actgtgggct cttatcactg tacctgcgag cccccactgg 1980
tgctggatgg ctgcgagcgc cgctgcgtct ccaacgagag ccagagcctc gatgacaatc 2040
tgggagtgtg ctggcaggaa gtgggggctg acctcgtgtg cagccaccct cggctggacc 2100
gtcaggccac ctacacagag tgctgtgtcc tgtatggaga ggcctggggc atggactgcg 2160
ccctctgccc tgcgcaggac tcagatgact tcgaggccct gtgcaatgtg ctacgcccc 2220
ccgcatatag cccccgcga ccaggtggct ttggactccc ctacgagtac ggcccagact 2280
taggtccacc ttaccagggc ctcccatatg ggctgagtt gtaccacca cctgcgctac 2340

cctacgaccc ctaccacccg ccacctgggc ccttcgccccg ccgggaggct ccttatgggg 2400
 caccgccgtt cgacatgcca gactttgagg acgatggtgg cccctatggc gaatctgagg 2460
 ctcttgcgcc acctggccccg ggcacccgct ggccctatcg gtcccgggac acccgccgct 2520
 ccttcccaga gcccgaggag cctcctgaag gtggaagcta tgctggttcc ctggctgagc 2580
 cctacgagga gctggaggcg gaggagtgcg ggatcctgga cggctgcacc aacggccgct 2640
 gcgtgcgcgt ccccgaaaggc ttcacctgcc gttgcttcga cggctaccgc ctggacatga 2700
 cccgcatggc ctgcgttgac atcaacgagt gtgatgaggc cgaggctgcc tccccgctgt 2760
 gcgtcaacgc gcgttgccctc aacacggatg gctccttccg ctgcatctgc cgcccgggat 2820
 tcgcacccac gcaccagccg caccactgtg cgcgcgcacg gcccggggcc tgagccctgg 2880
 caccgcctgg ccgcccaccc gcgcccgcc ctcggggccc ctgccgcgca tcctgcagcc 2940
 cgcttatgcg tatgtgcacg gggccgccccg cctggacctg gagaaggagc ctacggacgc 3000
 ctggaagctg cgacgccctg cactgtctcc gcctccacca gcgcctccca ctgatgtcgt 3060
 ggtcccgggc ctggcccagg ggccccttta catgccctct cccttttata aaattttcca 3120
 ttaaaaacca cctattttct 3140

<210> 1460

<211> 2975

<212> DNA

<213> Homo sapiens

<400> 1460

agatcgaccg gccgcgtcga ggtgtttccg gggttcagact gacaggccgc gccgaggtgt 60
 ttccagggtt ggattgacct gccgagccgc agtggtttcc gcggaggcgt ggactttctt 120
 ctttgcacgt cgtggtgttt ggagacgata ctccctggcc ggcgggattc atgacccttc 180
 gcgcagttgc cccgtccaga tccacgtgca ggactggtct cgcgtgacac acgcggccgg 240
 cacctttcag acggaagtgg aggggctgac gtgccgtggg cagagctcta gccaggctgc 300
 ccagagcgcg tgtcatgtcc gtgtccatga agatggtgtc tctgtgtata ggtcactgca 360
 ggggggagag gaaagagctc cgtggacctt gcaggacgca gcctgtgggg aaggggctcc 420

cgttctcgcc tgcattccgc agccctgggg tgtggtttcc tgtcttaaac cacctccatc 480
agcctggatt atgttcaaatt tgtggagcgc agcgccggag ggggcctgca tccccaccgt 540
cccttcatgt ccaggtgcgg tgtctccgtc ccagagaaac tgcattggagt cccccacgg 600
ttcccactgg agccagacct cagactcgga gctcctcagt ctctgctggg tcagaggcag 660
tgcgttcatt ttaggagcaa agttgaattc aaatttggat gagcacacga ggcccctggt 720
ggagctattc ctctgcctt tgaaagtctt gttgagaagt tgcacataat gacgttagca 780
gtcttcgcta ggcataggat gttttaatga atagtcttcc gtttccagtc atctcttact 840
ttaaacaatg tctctattat agaactaaaa aatgcccatc atagaggga atattggaat 900
acaatgaaat aaaaaagaaa attcaaataa ataatccata acttggttat ccagaggcaa 960
ctcctgttaa tttttttgga tatatttcat tcctaaagtt ctatcttttt aagattgtca 1020
tgtagggaac acaggaatca catcccgtgc ccccttccct tcttaaaata gcatagttaga 1080
tgccttatta aaatcttttt ttattatagt aagtaataaa tttcagccag atttgcattg 1140
gtggattgca tattctctta tttctctct tttcatgtta aattattgat gccgtgaata 1200
caaacaactc cctcccacgc ttgctttgct ttccaattaa cgcaaaatgc gaagccagtc 1260
tcgtgtgccg tgtgccgcag gtcgttgggg ctaacttttg aagagcaaga gagaggagcc 1320
ctttgggagg tgaggcggct ccagggaggg gcttggttaag gagctgccgg gtctgagtca 1380
cagtttctgc agtttctgtg ggatccaggt gtgctggctg agaagcctct agggaaagat 1440
gggtgaatta tttcaggcag ggcccagctt gctgtgtgac aggggcagca gctgggaatg 1500
agagaggcct ggctaaagtc attccaagac ccctcccggg tccttccttc actcggggcc 1560
accaccagg agccagcccg ccacatgttc ttgggggcat cccagcacgg gtctgggtgt 1620
gccgtgcagg agctgtgagt ctaatttcag ggtcagctgc tggactcagc taggttttcc 1680
cagcgtatgg ggtgagaacg ctcccacctg ggctgggggc tcagacactc gagctggctt 1740
gacagaggca gcccaccc atattctctt tggtttttt ttttttttt tgttacctcc 1800
catccatcat ccaaaaaaac acatgccag cagagaatcg ctgcttctgc tgctgtctcc 1860
tggtgatatt ccaggcgacc catgcctgtg tggtatgct tcttgtaag atattgaaaa 1920
actccagtgc cagttggcaa atagcgcagt agtagctgga atgagtagtg gcgttaatta 1980
gtaacgaaaa tcctaacgta actgcactcg tttgagccag ttgtcctaag tgccacaatt 2040
acccttggtg aatgggtctc taatgggtgt gttttagtca atagtagaat tattaaatac 2100
gtagaattct ttagtagcat tataaggtcc agacaaattg gggatataac tgctgttagt 2160

tcaggggaag ctgaaagagg atttgactg caaacagtat ttttgatgca aacatacatt 2220
 ctccccctgta agttacctaa ggacgtggtc cacaggagat gggcttggag ccctgatggc 2280
 tgatgcggtg gtcaccgagt ggacagaggt ggagcaggtg gaggtgggtg tgtctgcact 2340
 tgaggagggg tgagcaaagg ctgggggtggg agagcaggga gcaggcagta cccagtgggt 2400
 gttgaggggt caggaggagt gcaggcacc cagggtccatgt catgtgggtg tgtacctggc 2460
 cattatgatt caaagcatgt ccagctgtgc tcccgtggc accaggactt acgactgccc 2520
 attccatggg aaagtcattg gaaaagtcca gtgccgttcc ctgtgtcaaa atgtgaccca 2580
 gacagggtca tcatgtagct agcaatggcc acatcaaaga tactatgaac aattttaaac 2640
 aacaccacca acaaaatcat ttataatagc atccgagaca agaaatactt aagaataaac 2700
 aaatgtgcaa cacacacaca ctgacaaata tagtgcattc atgagagaaa ttaacaaag 2760
 aactaaatag atggaaggat atacaatgtt catggatcat aagactcaac actgttgatt 2820
 tcaattctac ccaactggtc tgtagattca atgtaatccc caaagatgtt ttgtagaaat 2880
 ggcaaactga ttttaaaatt tatgtataaa tgcaaaaaat tgaaaataag aaaaataatt 2940
 ttggaacaaa aaaataaagt tggaagactt atcct 2975

<210> 1461

<211> 4084

<212> DNA

<213> Homo sapiens

<400> 1461

atttcctctc tccttgggga caccgaaaag cagaccaccc gggcactacta aggtcaagat 60
 gtcgttgatc ggtttctttg ttttattgta ttacttgttt tatttaccta ttactttct 120
 tggtaaaacc agcctgccgg cttgctcagg acatgaacta tgacgtccct ggagatggtc 180
 tcttgggaga ggagcccccc aggccagcga atcccgtca cctgggggtt aacgagcagg 240
 cccggccatt tcccagggcc accggtgctc cctgatctca gtgtctccgt ctgtaaaatg 300
 ggtataacca gagccagcct gtgtggccct ggggaaagcg gcactgaggg cagaccaggt 360
 gtccagcagg gtctgcccc gactcccgcg cccccctgc cgccccctc gccgcggtct 420

tgcaccctcc actccccgtg cctgcaaagc ctctgccccg tccctacacc aggctaatacc 480
tttgcacctc agctcagagg ccccgctctcc aaagccttcc ctgaaacttc ctccttgaga 540
caccaccat cccaccaag cctgccacac ccaggcctgc tatcgcccgt gcggtgtcgt 600
ccttctgata agctgtggag gggtaagggt cggcctggtc tcttgttcat agccttaaac 660
ctagagccac tcaagtgccg ggcacatagc aggtgctcaa taaatactcc ttgctgattg 720
aacggcaacc agctgcaaga gtgaatgcat ggatgccgt cgtgggcctg ggtttggaga 780
tcttagaaac aaagcttcc tttgccacac tcatgccttc ttctatcaca ctcatgcctt 840
cttctaccac aatgtcacac cttacatct tgtatccgta gggaaatgtg gccaggggag 900
ttttaccaag ttggtctggg atgacgtgag ttaaccctca cactccacag tcagagagat 960
gggtaacca ggtgaccag cgctaagtga caaatacgct ctcggataga acagcccaga 1020
aagggaaga gggagagttg gaacactcag ataattacc ttcagcgacg cagtgcactt 1080
aagtggtgaa aggagattca ctggttggaa aaacgctcca gggcgaagg ccagcgtgtg 1140
caaaagcacc gaagcatgac cgagcgcggg cattcccgcc agccaccagt gggccacgca 1200
tccaacatg tgagtgccg aaggatacaa gtgcctaata tgaacctca agtggacgat 1260
cattcagtac tgactttggg cctggcccc tttcctcatg caagccttc aggcaggaac 1320
taagagtgag ccatacctta cagaagagaa aagcaagaca cagcaagctg agaaacttac 1380
cagggtcacc cagttggttg gagtcagaga tgtgttacgg gcagcagctc ctctgccccg 1440
ttacgtctgg gctttggggg ctggcccaga gatagtcata atgcagccct ttattcagca 1500
cttgctatgg gccaagtcct tcattcaca gctcaagtct tccaacca gaaagaaaga 1560
tggttagttc catttcatgt aggaggaaac tgctgaggct cagaaaattt aaggaattta 1620
ccggtcatca gtaaagcaga gtaaaggcct gtgtgaaccc aaatctgccc tctctgaaa 1680
ctctcgctgc agacatgca cccactgtt tttcaatttc atcttcttat ttattcactc 1740
aaccaatatt tatttacc aaagcactatga ggcccagtta agaattgtgtg gtcctcgatc 1800
tgacagcctg gattcaaata cctgttgccc cacaactctc cacactagct gtgtggcctt 1860
gcaaatttca ctcaacctct cagggactca gtttccttga ttgtcaaatg ggagtaatga 1920
catttcctac ctcatgtact tgttgggagg tagcattgag ttatcccatg ccgcacccgc 1980
tcccttgtaa actctggata attaccgagc tttcttataa gtgcagctca tggatcactc 2040
aaggcactgg gaatatagca atcacaacaa agattctagt catgggagat ggtcacctaa 2100
caaattaaaa actaaggcat ttgttaaagg actgaatgac caagattagc gttccaagga 2160

aaagtatggc gctctggagt ggtcaggaga gcctctgtca ctgagtagca gtgtggccct 2220
gtccaagctc ctggcctggc taggcctcat gcccatgtct gcatggcaag tgcctggaac 2280
cggatggcca tggcagcttt tgctctgtga aagcccaact gctcccctgg actgctccca 2340
tgttttctgt ctccaccgag caagcctctt tcaaagccct agagagagac ctgggtcccc 2400
agcacctct cctggaggag atctggactg aaatgtttgg gacgcctccc attcaaatgc 2460
tcaagtctcc aaaccgctgg ggaggcgttg cacaagagac aggcaggggt ttcagtttct 2520
ggcacttggt tgctcaaagg atctcagcct tcttcttctt gacatgcagc ttaaacaatgt 2580
gagctgaccc ttaaataaaa cccccacagt ttccatctc cttccaagag aatttcacgg 2640
ggtgcaggga gaatggggag gacgtgaaac gtggtgtatc ctgcaggatt cactccccc 2700
ctgacgggac taaaggtttc tgaagcctga aatatattca actaaatgag aaaatctttg 2760
ctgttgaatg gcctattaga gctgtcaca atgtgatttc tggaaataaa caagattata 2820
agaaggctgg ctggcgcaga aacagcccga tggatacacc ctgggagagg cgacgggggtg 2880
gcccctgtga cttcgggctg cgacgcgggtg tegtccccac cccaccccc ctcactctag 2940
aagtcacagc gccatctact ggacagcgga caaacctccc caccagggga cgggcttctc 3000
tgtttaaggc catccaaact agaaagctta aaaatgcgtt taagaggtag aataccatag 3060
ttgacggaac agaagaacaa gaacaaaact ctctaataaa aatcacaggg acctggaaat 3120
attgggtctat agcaatttgg tttttggggg ttttgttgtt gttgttgttg tttcgggggc 3180
ggggaggagg ttggttttgg ttttttggtt ggtttttgtt tttgtttttg ttttgagacg 3240
gtctcactct gtcattcagg ctggagtga gtagtgcat ctccactcaa tgcagtctgg 3300
accttctggg ctcaagcgac cctcctgcct cagcctcccg agcagctggg aacacaggcg 3360
cacaccacca cgcccggcta atttttaaat tttttgtaga gacagggcat tgctatgttt 3420
cccaggctgg tctcaaactc ctgagctcaa gcgacctcc cgctcggcc tctcaaagtg 3480
ctgggattac aggcaggagc caccacgcct ggcctatagc aattttgaaa actggctcaa 3540
gcccattcct ctatccctg acataacccc ccaaagagaa gactttttaa aaaggtaaga 3600
aaactgtttt ttttttcatt ttttaagagt ttatattagc tataaatttc tggagtaaag 3660
atttgggtcc acctagtcag ctccacatt tttctccca tcatccttgg ggctaagggtg 3720
taggagagct gggtagagac acacacactc acacacacgc gcacacacac gcacacacag 3780
acacacacgt gcgcacacac acgcacccag acacacgcgc gcgcacatac acgcacacac 3840
atgcacccag acacgcacac acgcgcacac agacacgcac acgcatgcac acacacaaaa 3900

acactccttg tgatggagct ctttaatcct cctggaccct gaacgctttg gtgaacacaa 3960
gcgtacaaaa ctaggataac ccaaataatta ttctgaattc tttttttcag tcgtttaagc 4020
aaaacaactt tcatttttaa agtttatgtg atttttcctt ataaatatca tcacattcca 4080
cgat 4084

<210> 1462

<211> 4828

<212> DNA

<213> Homo sapiens

<400> 1462

ggcaccctca gtgctcagtt gcttcaggca gctgagctat tcagaccatg gagaatatcc 60
tctgttttct gaacagctat actgagacag ggctgagccc tgactcacat tggttggata 120
tcgaccccaa cttcatctgc ttgagtgggt tggggttgtt tatactgtac ttgttctacg 180
tggatttgac cctgtattcg tcaccacccg aaaaaataa tgacatccaa aagcatcagg 240
gcagagccaa gaggagaagg aaaggtggga cattcaaagg tttcccagac tggaaaagtt 300
tccagagaga agaggaagag gaaaggaagc tgctttctct tctgaaaagc tttggacctc 360
ctgtttcctg cagtctcgg ggccagcacc atgataccaa ccactttcgt cgactgttat 420
gcccagaccc cgtctgtcgg gtgtgtaaga gagcaactgc tgatatccag caactgctgt 480
cttgggagtc cctgaaagat gctgctccct ctgtgtcccc tttggcttct tcggcttctg 540
cgactgagtc atcgttcact ctggcttcca cccctcagc aaccctcca gaagacctaa 600
tactgtcccc tcggcctaag gcctctccac caccctctt aattctctca cctgacctga 660
tcaccacctt agctgactta ttttcacct caccactgag ggaccctctg ccaccacagc 720
ctgtttctcc cttggattcc aagttcccca tagaccattc cccaccccaa cagcttcctt 780
ttcccttct cccaccacat cacattgaga gagtggagtc cagcctccaa cctgaagcca 840
gtttgtctct gaacaccatc ttttcatttg gctccacct atgccaagat atttcgcagg 900
ccatgaatcc cattgattct tgtgctcgtc atcacggacc accaatcca tctgctttac 960
caccggaaga ttgactgtg actcagtcta aatcaagtct caccatcttg aagacttttc 1020

.cggaaatgtt atctctaggt ggctctgggtg ggtcatccac ctctgcccc acaatcaaag 1080
gcattgacca ttcacacctt gcatcttcag aattcacctg gtggcagcct catgccaagg 1140
actctttttc ctctaatttt gtgccatctg atttcatgga ggagcttctt acccttcatt 1200
cttctgaggc ctttttaggg gggcactctg tggccaacct catagagcct gttaacatct 1260
catttctcag ccatgacatt ctggcactcc tggagagaca agtcaaaaaa aggggtgatt 1320
tcctgatgtg gaaagaaaat ggaaagaaac caggatcatt cccaaaacaa cttaggccaa 1380
actaccaact aaattcctca cggaatatgt taacctcaat tgctgttaag catgacttgg 1440
cagaatcctt tccttttttg gccagtaaag gcaaactaga atggcagcac atccatcagc 1500
agcctccaca ctctaaatgc tttgaagacc atttagagca aaaatatgtc cagctcttct 1560
gggggtctccc atctttgcac agcgagtctc tgcacacctac tgttcttgte caacgtggcc 1620
attcctccat gtttgtattc ttcaatggca ttacaaatac gtctatatcc catgaatccc 1680
cagtacttcc cctccccaa cctctgtcct tgcctagtag ccaaccacta cccttgccctc 1740
aaaccctgcc ccaaggtcag tccccacatc tctactcaggt gaagtccttg gctcaacctc 1800
aatctccatt ccgagcccta ctacctagtc ctctattcct gattaggatc tgtggagtgt 1860
gttttcatag accccagaac gaggcacggt ctcttttgcc atctgaaatt aaccatctgg 1920
agtggaaact gttgcagaaa gtgcaggaaa gtttgtgggg cttaccctct gtggttcaaa 1980
aatcccagga agacttttgt cctccagctc ccaatcctga attggtcaga aagtccttca 2040
aggctccatgt tccgatctcc atcattcctg gagattttcc actcagctct gaggttaagga 2100
agaaactaga gcaacacatt cgaaggaggc tcatccagcg cagatggggc ctgccccgca 2160
gaatccatga gtctctgtca ttgctacgtc ctcagagcaa aatttcagag ctatctgtgt 2220
cagagagaat tcatggaccg ttaaataatct ctttggttga gggtcagagg tgcaatgttc 2280
taaagaagtc cgcataagc ttccctagaa gcttccacga gaggagctca aatatgcttt 2340
ccatggagaa tgtggggaat tatcagggat acagccagga gactgtccca aaagatcacc 2400
tgttgcatgg tccggagaca tcttcagaca aggatctgag gtctaactct gagagagacc 2460
tagaaactca tatgatgcat ctgtcaggga atgactcagg ggtgagacta ggtcagaaac 2520
aacttgaaaa tgccctgaca gtacgtttga gcaagaaatt tgaggaaatc aatgagggtc 2580
gaatgcctgg gactgtgcat agttcatggc actcagtcaa gcagacaatg tctcttcttg 2640
agaaatccca cagccaaatt aaacatcgaa atctggtaac attggtgagt gaggaccact 2700
gcgttgatac ttcccaggaa atttccttcc ttagttccaa caaacaaaag atgttgaag 2760

cccatattaa aactttccgt atgaggatgc tgtggggcct tcccctcaag gtccttgaat 2820
ccatagaaat cttcaaactg aaagcggacc ttccacttc cttttcccat ttcgaccttc 2880
cctcctcagc caccttcac tctcagggag attccaaaga tggggctctt aagtcccgta 2940
gtcgaagcac ttttcaagga gaaaagttag gaacaacaag ctgagtcctt atccttgatc 3000
gtcctcacc tgtctcctca cctgtcgtcc aagaagggca ggggaccctg agaagacaat 3060
tttctgatac tgaccatgac cttatagaga cagattccaa agacggggcc tccacatccc 3120
ttagaagagg tactacagat tttcaaagcg aaaaattaga ttcaacaagc tcattcccca 3180
tcctcgggtca ttcttacctt gtcacttcac ctgtcaacca agaaaagcag gggaccctga 3240
gaagagaatt ctctgatact gacaatgatc ttacagaaag tgtccggaca acagaggatg 3300
gcagacagac ttttctgccc ccgccacaca gcatcgtaga cgaagtcagt cagaaacaga 3360
ctgtactggc cagtagatgc agcgcagagc tgcccataat gcaagctgga gctggctgtg 3420
agtcattgga taagagaaag agttcctttc ataattaga caggcttcag ggcagtagaa 3480
agacctttcc tgtaccaat gctcttcaat cacaaactag gaacaactg acaaccagca 3540
agtcaggaag ctgctcactg acaaatgtga aagcaagcac ttccaatgaa actgaaattt 3600
tcccaccaag aatatcagtt cctcaagatc ctaaactcct atacctaaa aatcagatgt 3660
tgagccagtt aaagttagtc cagaggaagc atagccaacc tcagagccat ttcactgaca 3720
tgtcttttgc cttagataac ttgagttcca aggacttact gactaattcc cagggcattc 3780
cgagtgggga catgggaact tcccagggtg tgcatgtcca cttggaggac agcggaatcc 3840
gtgtggcaca gaagcaggag cccagggtcc ctacctgtgt cttacagaag tgtcaagtta 3900
cgaattttcc accagctgta aacagagtga gtcctgtgag acccaaagga ggagagcttg 3960
atggagggga tgcagggtc gggacatccc aacgcaggag aaagagctc cctgttcata 4020
acaagacatc aggggaggtg cttgggagca aatcttcccc aacctgaaa acacagctc 4080
ctcctgaaaa cttttcaga aaatggatga agacctctt gcagtgggtt aataaaccca 4140
gcataatcata tgaagaaca gaaagtccct gggaaaaggg tagctccctg tcatcatgtg 4200
tgcagaatat tggctgagtt ataagagctg cttttactgg gactactgaa gctcagaaaa 4260
ttaggaaaga cactagggag ttcttagaag agaagctggg gcataggcat gggatagata 4320
tcacctgtcc ccaagagccc ctttcttcc cagtggggct tgggaaagct cagcacaacc 4380
cagaagtgca tgtcagagca gagcctgtcc agggctgtcc ctgcaactac agggctccct 4440
cctgcaaagt gacacgtacc aaatcttgca gccacaagc tatctttgtt ggccagaatt 4500

atcctacaag gattagacag atcatagaca aggacagaca gccccagaaa gttgaggcat 4560
ttaaggggaa gatactgtgt caaagccatc cccaatccat gccccacagg aagcctgtgc 4620
cacatccaaa cccacttgc cggcgtcagg tcagcctggg gtgtccagcc gtcccaacca 4680
gtgctaaaag ccctgtgttt agtgatgtgc ctttcctaac tggacagaaa atgcttccaa 4740
agcatttaca gggaggaaaa tttccccca caaaataatt cactccttgt tgagaatctt 4800
gattctcccc aataaatgtt ccaataag 4828

<210> 1463

<211> 4007

<212> DNA

<213> Homo sapiens

<400> 1463

gcttgcttcg gtgcggctgt ccgctacgt gcctccgccc tcgccgcgcg cccccgccag 60
cgggactcca gggaaccccc gggcacctcg acggggccga ggagtcggga ctcggggagc 120
cggcgtctag ggaggagcct ggteggagcc gcggagccga aagctccgga gcgtggaggt 180
ggggggccga ggccccctgag ggggccccgc cgcgatgggc aacctggaga gcgccgaggg 240
ggccccggga gagccccct ctgtcccgtt gttgctgccg cccggcaaga tgccgatgcc 300
tgagccctgt gagctggagg aaaggttcgc cctgggtgctg agctccatga acctgcctcc 360
agacaaggcc cggctcctgc ggcagtatga caatgagaag aaatgggatc tgatctgtga 420
ccaggaacga ttccaggtga agaatcctcc ccacacttac attcagaaac tccagagctt 480
cttggaaccc agtgtaactc ggaagaagtt caggaggagg gtgcaggagt caaccaaagt 540
actaaggagg ctggagatct ctcttcgcac caaccacatt ggggtgggtgc gggaatttct 600
gaatgatgaa aacaaaggcc tggatgtact ggtggattac ctgtcctttg cccagtgttc 660
tgtcatgtat agcactctcc ctgggcgcag ggccctgaag aactcccgcc tagtgagcca 720
gaaggatgac gtccacgtct gtatcctttg tctcagagcc atcatgaact atcagtacgg 780
attcaacctg gtcattgtccc acccccatgc tgtcaatgag attgcactta gcctcaataa 840
caagaatcca aggaccaaag cccttgtctt agagcttctg gcagctgtgt gtttggtgcg 900

aggaggtcac gaaatcatcc ttgctgcctt tgacaatttc aaagaggtat gcaaggagct 960
gcaccgcttt gagaagctga tggagtattt ccggaatgag gacagcaata ttgacttcat 1020
ggtggcctgc atgcagttca tcaacatcgt ggtgcactcg gtggaggaca tgaacttccg 1080
ggtccacctg cagtatgagt ttaccaagct ggggctagag gagttcctgc agaagtcaag 1140
gcacacagag agcgagaagc tgcaggtgca gattcaggca tatctggaca acgtgtttga 1200
tgtcgggggt ttgttgagg atgctgagac caagaatgta gccctggaga aggtggagga 1260
gttgaggag catgtgtccc atctcacaga gaagcttctg gacctagaga atgaaaacat 1320
gatgcgggtg gcagaactag agaagcagct gctacagcgg gagaaggaac tagagagcat 1380
caaggagaca tatgagaaca caagccacca ggtgcacacc ctgcggaggc tcattaaaga 1440
gaaggaggag gcctttcagc gtcgatgtca tttggagcca aatgtccggg gcctggagtc 1500
tgtggacagt gaggccctgg ccagagtagg ccctgcagag ctgagtgagg gcatgccacc 1560
ctccgacctg gaccttctgg ctccagcccc accccctgag gaggtcctgc ctcttctcc 1620
accaccagct ccgcccttg cccctccacc tccccatta ccagacaagt gtcccccagc 1680
cccacctctc cctggtgctg caccctctgt ggtgttgaca gtgggcctgt cagccattcg 1740
aattaagaaa cctatcaaga ccaagttccg gctgcctgtc ttcaactgga cagcactgaa 1800
acccaaccag atcagtggca ctgtcttcag cgaacttgat gatgagaaga tcttgaggga 1860
cctggatctt gataagtttg aagaattatt caagacaaaa gcgcagggcc ctgcccttga 1920
cctcatctgc tccaaaaaca agacagcgca aaaagctgcc agcaaggtga ctctgttgga 1980
agccaatcgt gccagaacc tggccatcac cctacgcaag gctggccgct cggctgaggga 2040
gatctgcagg gccattcata cgtttgactt gcagacacta cctgtggact tcgtggagtg 2100
cctgatgcgc ttcctgcca cagaggctga ggtaaagctg ctgcggcaat atgagcggga 2160
gcggcagccc ctggaggagt tggcagctga ggaccgctt atgctgctt tcagcaaggt 2220
ggaacggttg acccagcgaa tggctggcat ggccttctg gggaacttcc aggataacct 2280
gcagatgctc acaccgcaac tcaatgccat cattgcggcg tccgcttccg tcaagtcttc 2340
acagaagctg aagcagatgt tggagatcat acttgactg gggaactaca tgaacagcag 2400
caagcgggga gctgtgtatg gcttcaagct ccagagcctg gatctgctgc tggataccaa 2460
gtccactgac cggaagatga cactgcttca tttcatcgcc ttgacagtga aggagaaata 2520
cccagacctg gctaacttct ggcagtagct gcactttgtt gagaaggctg cagcagtgtc 2580
cctggagaac gtgctgctgg acgtgaagga gctgggccgg ggcattggagc tgattcggcg 2640

tgagtgcagc atccatgaca acagcgtcct ccggaacttc ctcagtagca atgaaggcaa 2700
actagacaag ctccagcggg acgccaagac ggctgaggag gcctacaatg cagttgtgcg 2760
ctactttggc gagagtccca agactacacc tccttctgta ttcttcccag tatttgtccg 2820
attcattcgt tcttacaagg aagcagaaca agagaatgaa gcccgaaga agcaggagga 2880
ggtaatgcgg gagaagcagc tggctcagga agccaagaaa ctggatgcca agaccccatc 2940
ccagcgggaa aagtggcaac agcaggagtt aatagcagag ttgaggcggc gccaggccaa 3000
ggaacaccgg cctgtttatg aggggaagga tggtagcatc gaggacatca tcacaggcct 3060
ccactgccag cctatggttg ttgccacca agccaggagt gctgcaccgc ccagtgggtcc 3120
ccctcgggct ccaggccccc actgagaccc tctcggaggc agaagcactt caccctcag 3180
agtcctacaa gtccaaccag tggacctgga attggccaag ggctcaggag agggctgtgt 3240
tgctctctca accatgtccg cccagctct ttaggctgga tctttctact tgtgccacta 3300
tgggcactag gtctgtaggt ccctggtgct tccagtactg cactttgcc ccaaggctct 3360
tgacttcatt tcctgaaggg tcaccaaggg tcagctcagg gctaggaaaa accatttcca 3420
gccttagcct aaacagggca catagatctc tcccactaga gccagaggg atgagaggag 3480
agagcaactg ttctttcttt tttttccct tcctttttgc aggcccatgg tcagctctgg 3540
tctagatgta tctaggctta gggagccctg ggaccctgcc agtctcagtt catctcttac 3600
caggagcaag gccctctgaa gcatgggccc tgccagctgt gccctagtga taagggtgag 3660
aggagagatg tcaggctcac tgcccttatt tctctgcca ttctattcta ggctcacact 3720
gtccttgtca aggtgggcag aagagcagag gtcttctctg caccaaccac tctctgcaga 3780
tggctggaga aagggtgtgc caactcttca ccttctttcc tcagctacgg ttttttttt 3840
tttttttttt tttttggcag gggacaagga gcatggtggt cttggctatt tgcttacctt 3900
cccgtttctc ctctgccctt ggaagggaat gtggggggccc acttttttgt acatgtacca 3960
cctcccttcc ctcttactgt acataaacct cagactctcc ccctctc 4007

<210> 1464

<211> 3329

<212> DNA

<213> Homo sapiens

<400> 1464

ggagccgcgg tcacgcgccc gcccgaaaggc tcctgtcggg acagggcgcc gccccgtgtc 60
ggcccccgca gagctcgcgg cccccgcctg tccgggcgcc gccatggagc gcatcgaggg 120
ggcgtccgtg ggccgctgcg ccgcctcacc ctacctgcgg ccgctcacgc tgcattaccg 180
ccagaatggt gcccagaagt cctgggactt catgaagacg catgacagcg tgaccgttct 240
cttattcaac tcttctcgga ggagcctggt gttggtgaag cagttccggc cagctgtgta 300
tgccgggtgag gtggagcgcc gcttcccagg gtccctagca gctgtagacc aggacgggcc 360
tcgggagcta cagccagccc tgcccggctc agcgggggtg acagttgagc tgtgtgccgg 420
cctcgtggac cagcctgggc tctcgtcgga ggaagtggct tgcaaggagg cttgggagga 480
gtgtggctac cacttggccc cctctgatct gcgccgggtc gccacatact gggacgctac 540
gatgggctcc tgaccccagc tgaggtcttg gggaaggagg aggggtgtcac agacccccac 600
ccccaccagc tgagcaccag cctccacagc ctctccaga ggccagggcc cgctccactg 660
ggagaagcac cggaagtctc tgcacctgtc agcctggcac atgggccact cagggttagg 720
cctggggccc tcccacctca gcagcctcaa ggacttcacc tgggcacgtt cctggctgga 780
tgggtggact cccaagttaa aggcagcatt tccacgctgg gccaggcacg gtggctcaca 840
cctgtaatcc cagcactttg ggaggccgag gcaggcggat cacctgaggt caggagtctg 900
agaccagcct gaccacatgg agaaaccccg cctctgctaa aagtacaaaa ttagccaggc 960
gtggtggcag gagcctgtaa ttccagctac tcaggagact gaggcaggag aatcgcttga 1020
accaggagg cgagaggttg ggtgagccga gatcgcgcca ttgcactcta gcctgggcaa 1080
caagagcgaa actctgtctc aacaaaacag aatttccatg ccgaagggtg gacttgggtg 1140
tgaaggatgg gccttggttt tctgcagggtg tctaccccggt ggtgggccac gcccactgtg 1200
ccccagctc ccagcccat agtactgagc acagccggga ggcatgggag gggctggagt 1260
ccccttggtc ccctggagg aggtgggcct gggcagggtc ctggcagagg gaccgcacag 1320
gctctcaggg caagtggctg agcagccctg gccgcgggtg ttctactggt acagcctctg 1380
ggccacagcc tgattgtgag ggtgctgggg agccaaggag ggctctggga agtaggcac 1440
ctgcttagac tcgcatcggg aagagcaggc cgtggcttca gggatgcagg actggagatg 1500
ctgctgacta ggggtcaggg tgtccgtctc tgagggcctg atggggggct ggactgacag 1560
caaagttcac ccaccctgtg gcagggcccg tggctccctg tctctgattc tggaggtgag 1620

ccaggcctct tacctgccgc tgcaaaggac aaggcccagg gaggcagtca gcttggggcg 1680
tgatggagtg aagttggaac gtgccctggg gtgggggagg cgttgcccag cctggctggc 1740
agattcctct cagcccgggc caagggccgg gcctgtctcc ttcacaagcc ggcggaaacc 1800
ggggctggaa accccagacc cgccacttcc ctcagaggcg cagccgcggc cgccgccgga 1860
aatgggcat caggaagggg tctgcgggag gtgaggggct agagggaag gaagcagctg 1920
ggtaaggctg gtctgggggt agtcccccg gaggtgggga ggccttgggg gtggggcatg 1980
gaagccccc gttctgtccc tgcccctgta tgttgggtac atctcagagg gcggcctcta 2040
ccctgcaggc ctccggctgg ccttgggttca tggcacccga cagcccctcc tgcggcgagc 2100
cagggtctcc ccacccctg gtcacttcc cagatgcccc tcagtcccgt ttctccccag 2160
atccacacct ggccctcccc ctctgttcc agaatgcagc ccagcccctc tgccatcctg 2220
tcctcctagc ccgtgggtct cctccacaca cgccagtcca ggctccttcc cttgggtgct 2280
gacccctcct ggctgccagc agccccctt tggccactgc cactgaggg agggggctcc 2340
ctcttaccct tccccagcct gggctactgg gcctgggtact gaggacctcg ctgccacccc 2400
acccactct gccatgctac ggggggtggg ggggcgggtca gtgcatgctg ttcctagtct 2460
gaaacttgtg tcctgtgggt gcctgggtggg gaacccttgc gggaaggcct ggtgggtttg 2520
tccctgcttc ccagccagcc tgtgtccccg ggtatgggct ggggtctggc atgggcctct 2580
gcagctggcc acagactgag gggctccaaa cagcactggg aacagcctca gggatatctg 2640
ttgggggctg cagacagggg tggggtcttc tgcttggcct tgacaggttg caggcaggtt 2700
gtcagccgga tctgcaatct catgggggct tggggtcttc ccggctcacg aggttatggc 2760
agaattcagc tcctgggtggc tggggactgg gtccacctc cctgctggct gttggccctt 2820
cccagcatgg cggttgcttc cccttcaggg ccagcaggac tggcctgaat ttctcccttt 2880
ctggcggtga aacaccctct ggagggtctc gtgatcgggc catgcccgc taggatgctc 2940
tcccttctga tgagctcaag tcaccgtta gggctcctaa tcacatcgac aacaccacc 3000
ccacctggtc tggagtggga ctgactggct ccagacagac catgttctac acagaggtga 3060
cagatgcccga gcgtagcggc ccaggtgggg gcctgggtga ggagggtgag ctattgagg 3120
tggtgcacct gcccctggaa ggcgccagg cctttgcaga cgaccggac atccccaaga 3180
ccctcggcgt catctttggt gtctcatggt tcctcagcca ggtggcccc aacctggatc 3240
tccagtgaga ctccagggtt ctagacagag gccagtcttg gccactcacc ccacaccccg 3300
cggaccccaa taaaggcttg catagctcc 3329

<210> 1465

<211> 4250

<212> DNA

<213> Homo sapiens

<400> 1465

ttttagtcct	atatatgttt	tagctcccag	aagacataat	aattactgtt	ttttacaatc	60
aataaccatt	tatattcacc	cacatTTTTA	ttctttctgt	catatttcat	tcctttctga	120
atttctatgt	atccatttgg	aatcttcttt	ttttcttttt	tttttttgtc	cagcagaact	180
catgttagta	tatattttag	tgagaatatg	ctggtgaaaa	ttttacatgc	ttttgttagt	240
ctggaaatgt	ctttattttg	ccttcttggt	tggagagtat	ctttctttct	ttctttcttt	300
ccttcttttt	ctctctctct	ttcttctctc	ctccctctct	tttctttctt	tctttttctt	360
tccttttctt	tctttttctt	tccttttctt	tctttctttc	tctctttctt	tttctttcct	420
tctttctttc	ttttttcctt	ccttctttct	ctctttcctt	ctttctttct	ctctctctct	480
ctttctttct	ttcttttttt	cagagtctct	ctctgtcacc	caggctggag	tggtgcagtg	540
gcacaatctc	agaacactgc	aacctccgcc	ttccaggctc	aagcaatcct	cctgtctcag	600
cctcccaagt	agctgggact	acaggcacat	gccaccacgc	ctggctaatt	ttttgtattt	660
tttgtagaga	tagggtttca	ccatgttgcc	caggcttgtc	tcaaactcct	tggtctcaagc	720
aatctgcctg	cctcagcctt	acaaacagct	gggattacag	ggttgagcca	ttgtgcccag	780
ccctagagag	ttttttgctg	ggtataaaat	tctagaaaga	cagttctctt	ttggcatctt	840
gaagatatat	ttccattgtc	tgtcttttat	tatttccatt	aagaagtcaa	ccataattct	900
tactgctata	cctttgaaga	taatgtatag	ttttgccatt	tatctgtttt	ctgggttttt	960
tctttgtcct	ttgtctttgg	ttttcatcag	ttttactgtg	ctatacctag	gtgctgtttt	1020
ctttgcccgc	atgtctttca	cttcagaaat	tctttgccct	tattacttac	attgttctgt	1080
cttatttttt	tctcttctgc	tccctctggg	actctaatta	gatacacctt	tttaccaggc	1140
ctatatagct	ataatctttt	cagtatttcc	attcttttta	ctcaccaagt	ttcagcttaa	1200
atactttctg	gcatttcttc	taaatcgcta	agcctctctt	cagcttccag	tattctattt	1260

aacctattta ttaagtcctt agtttcagtg attacatttt tttaagtttc aggttgcttt 1320
tcagttcttt ttatacatt ccagccagct ctctggaatc tataaattat tcatcctatc 1380
atctattttt gacatattaa tcacatgttt tttttaaaac aattttttct tgatgcataa 1440
cagatgtcca tagttttggg gtacatgtaa ataatttaac acattcatat aatttgtaga 1500
gatcaaatca gtatacttgg aatatctatc accttaactt tttttaagat tctagaaaca 1560
cttgaattat tctctactaa ctattttgaa atgtacaata aattattgta aactgtagcc 1620
accctaata ga tttatcaaat actaggtctt atttcttcta ttaaaccatg tatttgtagc 1680
tattaatcaa tttatcttca tagttccctt cccctaccc ttcctggcat ctagtaacca 1740
ccaatctact ctatatcttc tcaagatcaa cttttttagt tcctacattg agtatgaaca 1800
tgcattactt gtctttctgg gcttggttta tttcacttaa tgtagtgact tccagttcca 1860
tccatgttgc tgcaaatgac aggatttggg ctttttttgc agctgaataa tatttcattg 1920
tgtatctata ccacattttc tttatccgtt catctgttca tacacactta ggttgattcc 1980
atattttgac tattgtgaat aatgctgcaa taaacatggg agtgcagata gctctttaac 2040
atattgattt cttttctttt ggatatatac ccagtagtgg aattactgga tcatatggta 2100
gttctatttt tagttttttg agaaacctct atactgttct ccatagtcac tctgctaatt 2160
tacattccca ccaacagtgt atgagggttc cccttttcca catcctcacc agcatctgct 2220
actgcctgtc tttttgacat aaaccatttg gaccggggag agataatatg tcaactgttc 2280
aaagtaactg cagttgcgga ctatgaattt taaccattat aactatgctc aaacacatct 2340
ttattaatta aaataggaac cattacaatc aacacatttt tgccaataag aaataagttt 2400
gtttattcct atggtgtaaa agtttgtgct ttaggattca acaaactctt ggaaagcatt 2460
ttctgcatte tgctggttgt ggaagcattt tccctgcaaa aggttgtcaa gatgtttaaa 2520
gaagtgggag ctggttggtg agaggtcagg tgaatacggc ggttgaggca aaactttgta 2580
gccaattca ttcaactttt gaagtgttgg ttgtgcgaca tgaggtcagg tgtgtcgtg 2640
aagaactggg ccctttctgt tgaccaatgc cagcttcagg cattgcagtt tttggttcat 2700
ctcatcaagt tgctgagcat acgtctcaga tgtaatcatt tcgccaggat tcagaaagct 2760
gtagtggatc agaccagcag cagaccacca aacaatgacc gtgacctttt tttggtgcaa 2820
gtttggctgt gggaagtggc tttggagcta cttctcggtt cagacactga gctgatcatc 2880
accagttgtg gtataaaatc cacttttcat cgcatgtcac aatcccatca agaaatggtt 2940
cattgttgca cagaaaaaga gaagacgaca cttcaatata atgatttttt ttatttttgc 3000

taagctctta aggcacccac ttatctagct ttttcacctt tccaatttgc ttcaaatacc 3060
aatgaccat agaatggttg aactgagtt ctttggaac ttctcgtgta gttgttagaa 3120
gatcagcttc aatgattgct ctctgttggt gtcaacttcc gacggctggc cactgtgctc 3180
ctcatcttca aggctcttgt ctcttttgtg aaacttctcg aaccaccact gcaactggaca 3240
tttgtagca gttcccagac caaatgcgtt gttgatgttg caagttgtct ccgctgcttt 3300
atgaccgatt ttgaagtcaa ataagaaaat cactcgaatt tgctttttgt ttaacatcat 3360
ttccatagcc taaaataaac ataaaatata tatcaagtaa taagtcatta gcaaaaaaaaa 3420
tgagaaatat gcattaaaat gatgtatgac ataaccacat gtatttataa acgtattcca 3480
atatcaaatg gcaaatctca acaatgctaa aaccacaatt acttttgac caacttacat 3540
ttctctgatt actgatattg agtatTTTTT catatttggt gaccatttgt atgtcctctt 3600
ttgagaaatg tctattcaga gctcttgacc atttttttaa ttttcttttt ttttttttg 3660
ctattgagtt gtttgagctc cttatatatt ctggctatta atcccttgta tgatggatag 3720
gttgcaatat tttctcccat tctgtgggat gtctcttcac tctattgatt gttgtctttg 3780
ctgtgcagaa gcttttttagc ttgacatgat cccattggtc catttttgct ttggttgctt 3840
gtgcttttgg tgtcttacac aaaataaata cttgcccaga caaatgccct ggagtcattc 3900
tccaatgttt tcttctagta gttcatagt ttcaggtctt agatttaagt ctttaagtcaa 3960
tttcgattca atttttgtgt atgaatagcc ctgtgcacac acaacatgat cttttttaga 4020
aaaacctaaa gatgccacca aaataatgtt agaactgata aatgaattca ataattgcag 4080
gatacaaaaa tcagtagtgt ttatatacac caacaacaaa caatctgaga agaaaatcaa 4140
ggaaacagtc tcatttgcaa tagatacgaa taatatataa tacctaggaa tcaatttaac 4200
caaagaactg aaagatctgt acaataaaaa gtataaaaca ctgataaaag 4250

<210> 1466

<211> 4056

<212> DNA

<213> Homo sapiens

<400> 1466

caggatcaaa tccacacatg tcaatactaa ccttgaatat aaacttaa at gccccactta 60
aaaatgcaca gagtggcaag ctggataaga aagcaaaacc caatggctctg ctgtcttcaa 120
gagatccatc tcatatgtaa tgacactcat ggggtcataa taaacggatg gagaaaaatc 180
taccaaaca atggaaaaca gaaatcagca ggggttgtaa tcctaatttc agacaaaaca 240
aatttcaaac caacagagat ttaaaaagac aaggaagagc attccatgat ggtaaagggt 300
tcaattcaac aagaaaacct aactatccta aatatatatg cacccaacac aggagcaccc 360
agattcataa agcaagctcg taaagaccta caaagagata cactgtcaca cagtaatagt 420
gggagacttc aacaccccac tgacagtatt agatcattga ggcagaaaat taacaaagat 480
attcaggacc taaactcagc attggacca atggatctga tagatcttta cagaagtctc 540
caccccaaaa caacagaaca tacattcttc tcattgccac atggcacata ctctcaaatt 600
gaccacataa ttggacataa aacatcctca acatatgtaa aagaactgaa atcatatcaa 660
acatactcta ggttcacagc acaataaaag tagaagtcgg tcgggtgtgg tgattcatgc 720
ctgtaatccc agcacttcgg gaggccaagg caggcagatc atgaggtcag gagattgaga 780
ccagcctgac caacatagtg aaacctcgtc tctactaaaa atacaaaaat tagccaggcg 840
tggtagcaca accctgtaat ccagctact caggaggctg aggcaggaaa attgcttgaa 900
cccaggaggc agagattgca gtgagccgag attgcaccac tgcactccag cctgggcaac 960
agagcaagac tccatctcaa agaaaaataa aatagaagtc aacacaatga aaactgctaa 1020
aaaccataca atcccataaa aattaaacta catgctcctg aatgactttt gaataataa 1080
ttaaattaag gcagaaatca ggaagttttt tgaaaataat gaaaacaaag atacaatata 1140
ccagaacctc tgggacacag ctaaggcagt attaagaggg aaattcatag caccacatc 1200
aaaaagttag aaagatatct aaattaacaa cttaattca tgacagaatt agagaagcaa 1260
gaacaaatca gcccacaaatc tagcagaaaa caagaaataa caaaagtcag gcagagcttg 1320
atggctcatg cctgtaatcc cagcacttta ggaagccggg aaaggtggat catttgaggt 1380
aaagagtttg aaaccattcc tacagaaact attccaaaaa agtgaggagg aggggcttct 1440
ccccaactca ttctatgagg ctggcatcat cttgctacca aaatctgtca gagatacaac 1500
aaaaaaaagaa aacctgaggc caatatccct gatgaacatt aatgcaaaaa tcctcaatac 1560
aatactggca aactgaatcc agcagcacat caaaaagcta atccaccatg accaaatatg 1620
cttcatcccc agcatgcgac attggttcaa cacaagaaaa tccataaatg tgattcatct 1680
cataaacaga actaaagaca aaaacctcat gatcatctca atagatgcag aaaaagcttt 1740

caaaaaaatt caacatccct ttgtgttaaa aactctcaac aaattaggtta ctgagggaac 1800
atacctcaaa atgcagccat cagtgaacaaa cccacagcca acatcatact gaagggcaaa 1860
agctggaagc atttcctttg aaaagtggca taaaacaagg atgccctctc tcaccactcc 1920
tgttcaacat aatattggaa gtcctagcca agggcaatca ggcaagaaaa agaaataaag 1980
ggcatccaaa taggaagaga gaaagtcaaa ctatctgcag atgacatgat tctatatcta 2040
gaaaacccca tagtcttggc ccaaaagctc cttcagctga taaacagctt cagaaaagtt 2100
gcaggatgta aaatcaatgt acaaaaatta ctggcactcc tatacacat caacaaccaa 2160
actgagaacc aaatcagaaa ggcagttcca ttcacaattg ccacacacac aaaaataaaa 2220
tacctaggaa tatggctaac cagagagggtg aaagatctct acaatgagaa ttataaaaca 2280
ctgctgaaag aaatcagaga tgacatgaac aaatagaaaa acattccatg ctcaggcata 2340
gggagaatca gtatcattaa aatggctata atgccccaaag caacttatag attcaatgct 2400
atccctatta aactaccaat gacattcttc atataactag aaaaatttat tttaaaatta 2460
atatggaacc aaaacagagc ccaaatagcc aaggcaatcc taagcaaaaa gagcaaagct 2520
ggaggaatca tactaccaa cttcaaacta tactgcaagg ctacagtgc caaaacagca 2580
tggtactggt acaaaaacgg ccacatagac caatggacag aaaagagaac ccagaaataa 2640
agctgaccat ctgatctttt acaaagctga caaaaaccac aatggggaaa agactcccta 2700
tttaataaat ggtgctggga taactgacta gccataagta gaagactgaa gctggacccc 2760
ttccttaaac catatacaaa aatcaactca agatggatta aatgacgagt taatgggtgc 2820
atcaaaccaa catggcacat gtatacatat gtaacaaacc tgcattgtat gcacatgtac 2880
cctagaactt aaagtataat aataatttta aaaagatgga ttaaatactt aaatgtaaag 2940
cccaaaacta taaaagtcct ggaagaaaac ctagggatca tcctggacct agggatggat 3000
aaagatacca taacaaagac accaaagcaa ctgcaacaaa agcaaaaatt gacgtgggat 3060
ctaattaaac ttaagagctt ctgcacagta aaagaaacta taatcagagt gaacaaccta 3120
cagactggga gaacattttt gcaatctatc catctgacaa aggtctaata tccagcatct 3180
ccatggaact taaacttaca agaaaaatac aagcaactcc attaaaaagt gggcaaagga 3240
catgaacaga cacttctcaa aagaagacat ttatgcggcc aaaaaacgtg aaaaaaagat 3300
caacatcact gatcattaga gaaatgcaaa tcaaaactgc aatgaaacac catctcacac 3360
gattattaaa aagtcaagaa aaagatgctg gtgaggctgt ggagaaatag gaacacttta 3420
cactattggt gggaatgtaa attagttcaa tcattgtgga aaggagtatg gagattcctc 3480

aaagagctaa aagcaggact accattcaac ccagcaatcc cattactggg tatataccca 3540
 gaggaatata aagcattcta ccgtaaagac acatgtatgc gaatgttcat tgcagcacta 3600
 ttcacaatag caaagacata gaatgaacct aagtgtccgt caatgacaga ctggataaag 3660
 aaaatgtagt acatatacac tatggaatct tatgcagcca taagaaagaa ggagatcatg 3720
 tcttttgcag gaacgtgatg gagctggggt ctatcatcct tagcaaaacta acacaggaac 3780
 agaaaaccaa atagcacatg ttctcattta taagtggggg ctaaatagata agaatttatg 3840
 aacacaaaga agaaaacaac aaacactgga gtttacttca acagggcgga tgggaggagg 3900
 gagaggagca gaaatgataa ctattgggta ctgagcttaa tacctgggtg atgtacaaca 3960
 gatcccatg acaagtttat ctatgtaaca aaccttcaca tgtaccccca aaactaaaat 4020
 aaaaattcaa aaaataactt aaaattttta aaaaag 4056

<210> 1467

<211> 3517

<212> DNA

<213> Homo sapiens

<400> 1467

aaggtttggg gggcctgggt ttaggtaggg catccacctc tgctaaagggt atcatagttc 60
 atactgggtct cattaattct gattcctctg atgagattaa aataatcgtg tctgccaagg 120
 ttctgtttc cattccggcc agtgagtcaa ttgctcaact acttttacta cctaattatg 180
 ttttaaacaa aggagataag acagggggcc ctgggatggg ctctggcggg gaaaaagccg 240
 cttattggat taaagtaatt tctaaacaac agcccacctg caccatacat attaaaggaa 300
 aaaagtttga gggcctagta gatactgggg ctgatgtttc tattatttcc tctaatttat 360
 ggccttcttc ctggcttaaa catcccaacta acatgggact agtaagggtt ggaaaagctg 420
 atgaagttca ccaaagcaca tttatcttgc cttgcactgg gcctgatggg caaaagggaa 480
 caattcagcc ttatatcatg ccaatcccca ttaatctttg gggtagatat ttgctggaac 540
 aatggggggc tgaaattaat attccacata actcttctcg tgctcccagt caacatataa 600
 tggaaaacgt ggggactgtt cctggactca gtctcggtcc aaaacatgaa ggaattacta 660

aattccttta tggtttaaaa gcataattta accactcccc actcccaatt ccatttagca 720
ttgtttactt taaactttct aaatgttcct aaagacaata ctctgactgc agccgaacac 780
cattatacag gcaaaaaatt ctccctaaat gaaagcaagc cagtgttatg gaaaaactcc 840
cagacaaata cctgggaacc tggaacaatt ataatgtggg gaagagggtta tgcttgtgtt 900
tcaccaggag atcatcaatc ccctgtctgg gtgcccacta gaagacttta acttcgtgtg 960
aatactgaca atgaaaaaca cagggaagag atgtccacgt cagagactgc ctcatacct 1020
ggtgagatct gtgccaactc ctcaaaaact ggcacaccaa atcaaaatgg atctcattca 1080
atccctcccta atggcaacag agaccctctt aactaatccc acttctccta attacctttc 1140
tttttctcct tacaacctg aaaatctcac catttctatt agcctgaaaa taacatccct 1200
ctgttcttct ctctctcctt cagcactgga tctcgcttac aataggtttt atttaataat 1260
tctactcctt atactttctg tctcaccagt tccccctcac actgatttgc ctgctacaca 1320
aaattattct tattgggctt atgtgccttt tcctccactt attcgacctc tcacctggat 1380
gaatgctcct gcggaaatct acactaacga tagtgtgtag atgcctggag ctatagatga 1440
ccattgccct gctcaaccag gagaagaagg cactgcattt aatgttacta tgggttataa 1500
ataccctcct ctgtgcctcg gacatgcaac tcgttgtatc catctagaaa ctcaagtctg 1560
ggctgcttat ctcttggaaga gattagctac aggaaaatgg ggacatttgg tctccggcct 1620
ctccctttgt cctttaagac aaatgaaaag gggagtaata ggagataccc catactttca 1680
atataaacct gtaggaaaac tatgtcctaa aaattttgag ggcccatcta aaactttaat 1740
ttggggagat tgtgttaact cacatgcagt agtattaaaa aatgactcat atgctttagt 1800
aatagactgg gcaccaaagg gctattttaa aaacacttgc tcctctgggg gaggggaatt 1860
cctggaggct acttatttta tttcttattg ggaggacgag gatcatcatc ctactttgca 1920
taggtgggtc ggctcattct ttacctttaa atgggaagat aaggacatta ccctccaccc 1980
ccaaggcctt gtatgatatt cccattctg agcccagaac acccagaact ttcgaaattg 2040
gctattgtca tgtctggact gccagtatct gtgattctga accccatgat aaatcccctt 2100
tgaacctttt tcctcttttt gatgccgate ctcttttacg ggactccaat tggcattacg 2160
ataattctta tcgaccagg tatgccctc tacttttca gcatccccag gcacctcggg 2220
ttgcttcttt atgggtggaga acatcgggca ttgccaccgc cgctcctctc cctcagtatc 2280
aacatagatt caagcattct gctttgttta cctccaacct gactattcct atacagagtt 2340
gtgttaagct tccttacatg ctgttagtgg caaatatcaa aatttggaca aacaatcaaa 2400

ctgtccaatg cattgtcatt tatacacttg tgttgactcc cgttttgact ccaggaaaag 2460
 tgtaatgttg gttggagctc gagaaggaat ctggatactg tgtgccggac cagccaaaga 2520
 atcctgtgtc aaaaccgaga gaacgaataa gccttcatca ccatggcaca tttatataaa 2580
 aagaaaggga gagatgttgc gggaagtcag ggaccccgaa tggagggact gactggagcc 2640
 gcggcagagg aacataaatt gcaaatatit cattttaata tggacattta tcagttccca 2700
 aattattact ttttacattt cttacgcctg tcttacttta atctcttaat cctgttatct 2760
 tcataagctg aggatatatg tcacctcagg accactgtga taattgtgtt aactgtacaa 2820
 attgattgta aaacatgtgt gtttgcacaa tatgaaatca gtgcaccttg aagaagaaca 2880
 gaataacagt gatttttagg caacaagaga agacaacat aaggtctgac tgcgtgcagg 2940
 gtcaggcaaa atagagccat atttttcttc ttgcaggagg cctataaatg gacatggaag 3000
 tagggaagat attgctaaat tcttttctta gcaaggaata ttactattaa tactctggga 3060
 aaggaatgca ttcttggggg gaggtctata aacggccgct ctgggaatgt ctgtcctatg 3120
 cagttgagac aaggactgaa gtacaccctg gtctcctgca gtaccctcag gcttactagg 3180
 gtggggaaaa acctggccct ggcaaactctg tggtcagact ggttctctgc tcttgaaccc 3240
 tgtgttctgt tgtttaagat gtttatcaag acaatacgtg cactgctgaa catagaccct 3300
 tatcaggagt tctacttttg cccttgtcct gtttccctcag aagcatgtga tctctgttct 3360
 gctttttgcc ccttaaagca tgtgatcttt gtacctaccc cccgttcgta caccctctcc 3420
 ccttttgcaa tccttaataa aagcttgctg gttttgaggc tcgggccggc atcacggtcc 3480
 tactgatatg tgatgtcacc cctggcggcc cagctgt 3517

<210> 1468

<211> 3532

<212> DNA

<213> Homo sapiens

<400> 1468

agccaggcgg aacctgggc gcggagcgc gacagctccc ctctgtgcct gcagagcccg 60
 gcgcccacag ctggccctc tctcgagca gcggggcatg gccatgtgtg gatcctgccc 120

ctgccccatg aggccgactg acttccttgg gtatggggca cccgtcccag ggaggccttg 180
gccttggaga gcctctccag ctgtacagcg tcagcctctc tccagctgca cagcgtcagc 240
ctctctccac ctgcacagtg tcagcctctc tccacctgca cagcggctgg gagcagcagc 300
ctctccacct gcacagcgtc agcctctctc cacctgcaca gcgtcagcct ctctccacct 360
gcacagcggc tgggagcaac agcctctcca ccggcacagc ggagcctct ctccacctgc 420
acagcgtcag cctctctcca cctgcacagc gtcagcctct ctccacctgc acagcggctg 480
ggagcagcag tctctccacc tgcacagcgg cagcctctct ccacctgcac agcgtcagcc 540
tctccacctg cacagcgtca gcctctctcc acctgcacag tggctgggag cagcagcctc 600
tccacctgca cagcgtcagc ctctttccac ctgcacagcg tcagcctctc tccacctgca 660
cagcggctgg gagcagcagc ctctccaccg gcacagcggc agcctctctc cacctgcacg 720
gcagcagcct ctccaccggc acagcggcag cctctctcca cctgcacggg ggagcctct 780
ctccacctgc acagcggctg ggagcagcag cctctccacc tgcacaacag cagcctctct 840
ccacctgcac agcagctggg agcagcagcc tcgagggtt gctgcaaaga tggagtctcc 900
acatgtaatg tcaggacagc acccgccaca cactgcgcag tctgcagggc tgtggtgatg 960
gtgactgtgg ggggtgacggg aggcagagag ctcagggaca gctcaggata ggcggaaca 1020
caagcacatg tgaagcaaa ggcatcgcc aactctgagg aaaacaaatg ggcaccaccc 1080
ggggaggccg ggagcctctg ccccaaacat cattcgtgcc gggatgatat ggacagggca 1140
gcgtgtggaa gacaagcccc ttccaccgtc cacggggaat ttctgactg gaagctccag 1200
aagcagcagc atcaggtgct ttttggaac aggcagttag aaagcgaag cacagcacc 1260
acccccccac ccaggaaact gcctccgtct cttctgctgc agaagaagca gcagctggaa 1320
gaggcagcca ggtgctgatt tcacgtaag cctgaggcct cctttgggct tttctaactt 1380
tgtgtcctta tgatgttcac aaataactaa gtaagttgtg agctgttatt tctgtcatt 1440
gaaattaaag gtgtttttt ttttaatttt tttagacgaa gtctcactct gtcgccagg 1500
ctggagtgca atggcgcaat cgcggctcac tgtaacctcc gcctcccagg ttcaaacaat 1560
tctccgcct cagcctcctg agtagctggg attacaggcg cctgctgcca tgcccggcta 1620
atttttgtat ttttagtaga gacagggttt ctccatgttg accaggctgg tctcaaactc 1680
ctgacctcgt gatccgcca cctcggcctc ccaaagtgtg gggattacag gcgtgagcca 1740
ccgccccgga ctgaaatcaa aggtttctta agcagctgcc cgctgtgtgt gtggtgaacc 1800
cggggcctga atgcaggtgg gacgcagcct cccaagcgcc gggagccgct ggctcctcac 1860

gcctgtcgat ctagcaaatg tgctttggag tctctgacgg acgcgattct gaatccagaa 1920
ggaaagcgtc tcaactccgag atgctgactg acgtgtcctt tatagcgggtg ggacttggga 1980
agccgggtgac gcccgggtgtg gaggacgggt gtgacgcccc tcggtgggga cacgggtgtaa 2040
aggcggcgtg gaaacttgggt gcacgacctt acaataaatt gtaaaataag cgttttacct 2100
ggtgagatga aaagaccggc aggagacggc accccggtag gatgaacaga agagactttt 2160
aaacctgaag aaatcatcca aaaagtgacc acatgttagt gtcctgctgc gagtctctcc 2220
cccagaatcc aagcttggcc acgtggggcc ctaggaaggt actgacattg ttcgaagagc 2280
tggtgcctcc cggccggagg ccgctgtcaa aggacgcacg acctgtgggc tcaagcagcc 2340
gtccgtccag gacttgtctt gcggaggcag acctggtccc aggccacgga gtcctccca 2400
gggctgcca gccctccac cccaccgggt acacacaccg ttccccggcc tggcctggac 2460
ccgagcctct cgcacgggtg cgctggggtc ctggaccgc agagcaggct cagcctggcc 2520
ccaccctacc cgatccctgt ccagtccct cccagcctc ctctctctt gagcagcctc 2580
ccgaggggac ccgcaggcag ggcgtaggag ggccggggccg agcccactgg accccagctg 2640
gtggccgccg gcgcttctta cctgcccagc ccacaaggtc ctgggagcct gggccaggaa 2700
acaacagtgg tgaccggca accgtctctt ggcaaccccc acccagccgg aaccagagg 2760
tgagcttggg ttttcggagg atggggaggg gctgtgtagt ggccggggcca gcctgggaag 2820
ccgggctgag ggctgaggct ggggaagggc acagcttcat gggcacagct gcctcccagt 2880
cactgtggg actgcctgag cctgagcccc agttgtgtcc cctccggccg gccctcccag 2940
gatggtccct gagccgtctc tcaggcccca cccatgtctc gcaccccagg acctggcccc 3000
ggccaggctc tgcgtgcacc ctggtgatgt tggctggata cacggctgcc gatccctgag 3060
cattctctgt gcttcacgtg gtcgggtccc tgttctcact ccacagcgga cgaggtgcca 3120
ctgtgcccc ctctgcaaac aggaaccggg ggctccacaa agtgagtgcc cccagaggg 3180
ggactcacat ctatcgtcc aaactgcacc tttctgtaag cccctcgtg tgtcacagac 3240
ctcgccaaa gtgaagcatt ccgcaggggt ttgggccgtg aggaacagcc tgcccagac 3300
ctgacttgaa cactctgcgg ggaaaaacac cgaggaacat cacgattacc ttctgcggga 3360
acaagggcca aacaaacggc ctatcctga agccgtgtgg cccggggccg tcccacccat 3420
acctataggc accccagccc gtaggcggca gtgggctctg gcattccagct ggtccccac 3480
ctctgcaggt gtttgcaatg taccctgtgt gatgtaaggc tgccctttct cc 3532

<210> 1469

<211> 3093

<212> DNA

<213> Homo sapiens

<400> 1469

gcactccagc	ctgagcgaca	gagcgaaaca	ccgtctcaaa	aaaaaaaaaa	aaaaaaaaaa	60
atcagctcct	cagtcacgct	agccacattt	caagcgcaca	attgccacat	aaggccggtg	120
actaccatgc	tggacagtgc	agctacggta	catttccaat	accgaaggaa	agtcccatgg	180
cccgcgctgc	tgtggggaat	cggaagaggc	acgccattcc	cgggaagaac	aaaaacctcc	240
tagagaggct	taaaaaattt	gccattaaca	cggggaaaaa	aatctatttc	cattcctcca	300
tcttattttc	tcacctccta	gacaatgttt	ctttttttta	ttctttctct	ccctattttc	360
tcacattttt	cctgcccttt	tttcttattt	ttctctcact	gctttttcta	acaacaacaa	420
tgcagtccat	ctttaatgat	ttgatgcatt	tctttagggt	tttcaaaatt	tctcaatggt	480
aaaatgtaag	gagctgaatg	aacattattt	ctaattgtgt	ttttttttta	aaaaaaagcc	540
atatttagag	gagactgttt	tttaaggtat	gtgaccttag	gtgtgtttcc	cccacctgag	600
aacattattc	ttccatagaa	agggtttctc	accgttggaa	tccgggggtga	ataaaaattt	660
gcaattctag	ttccggcctc	tggggtttcc	ttgcaccgga	ggccgggctc	agtcctctgg	720
gccgcgaagt	gggcgcggaa	cctctcggtc	cgccgaactc	ctaccgccac	ctagcgggaag	780
gaaggcgcaa	gggcttcttc	gtcactgacg	gttgccaggc	aacggaggca	cggccccggcc	840
cgcgttaagg	aggagggcgc	agaccgaagg	acactgaaag	agctgtaaca	accccacttt	900
cgattggttg	aagagctctc	agccttctca	tgagccaatg	agaagaggca	cgcggatggc	960
gtcagacgct	atgcgactcc	tcccaccac	gctctggcaa	tgcgattgga	gaccgcggag	1020
gcctacgtcg	gacccggagg	ccctgaatgc	cccatgcgca	ccccacagct	cgcgctcctg	1080
caagtgttct	ttctggtggt	ccccgatggc	gtccggcctc	agccctcctc	ctccccatca	1140
ggggcagtcg	ccacgtcttt	ggagctgcag	cgagggacgg	atggcggaac	cctccagtcc	1200
ccttcagagg	cgactgcaac	tcgcccggcc	gtgcctggac	tccctacagt	ggtccctact	1260
ctcgtgactc	cctcggcccc	tgggaatagg	actgtggacc	tcttcccagt	cttaccgatc	1320

tgtgtctgtg acttgactcc tggagcctgc gatataaatt gctgctgcga cagggactgc 1380
tatcttctcc atccgaggac agttttctcc ttctgccttc caggcagcgt aaggtcttca 1440
agctgggttt gtgtagacaa ctctgttate ttcaggagta attccccgtt tccttcaaga 1500
gttttcatgg attctaattg aatcaggcag ttttgtgtcc atgtgaacaa ctcaaactta 1560
aactatttcc agaagcttca aaaggtcaat gcaaccaact tccaggccct ggctgcagag 1620
tttggaggcg aatcattcac ttcaacattc caaacacaat caccaccatc tttttacagg 1680
gtttcctaga gagtaaaagt acaacttgca ctctgttttt caagaacctg gctagtagct 1740
gtaccttgga ttcagccctc aatgctgcct cttactataa cttcacagtc ttaaaggttc 1800
caagaagcat gactgatcca cagaatatgg aggtatgatg ctgttgtacc aggaaaaaag 1860
aaaaagaata tttggcttct ctgcatctga ggcaatttta gtctaagttg tactgttgaa 1920
agataaattt ccaggttcct gtaatactta cctcacaggc taatgctcct ctgttggctg 1980
gaaacacttg tcagaatgta gtttctcagg tcacctatga gatagagacc aatgggactt 2040
ttggaatcca gaaagtttct gtcagtttgg gacaaaccaa cctgactgtt gagccaggcg 2100
cttccttaca gcaacacttc atccttcgct tcagggtttt tcaacagagc acagctgctt 2160
ctctcaccag tcctagaagt gggaatcctg gctatatagt tgggaagcca ctcttggtc 2220
tgactgatga tataagttac tcagatgacc ctcttacaga gccagggtaa tggaagttgc 2280
tctgttaaaa gacatgaagt gcagtttggg gtgaatgcaa tatctggatg caagctcagg 2340
ttgaagaagg cagactgcag ccacttgcag caggagattt atcagactct tcatggaagg 2400
cccagaccag agtatgttgc catctttggt aatgctgacc cagcccagaa aggagggtgg 2460
accaggatcc tcaacaggca ctgcagcatt tcagctataa actgtacttc ctgctgtctc 2520
ataccagttt ccctggagat ccaggtattg tgggcatatg taggtctcct gtccaacccg 2580
caagctcatg tatcaggagt tcgattccta taccagtgcc agtctataca ggattctcag 2640
caagttacag aagtatcttt gacaactctt gtgaactttg tggacattac ccagaagcca 2700
cagcctcaa ggggccaacc caaatggac tggaaatggc cattcgactt ctttccttc 2760
aaagtggcat tcagcagagg agtattctct caaaaatgct cagtctctcc catccttate 2820
ctgtgcctct tactacttgg agttctcaac ctagagacta tgtgaagaaa agaaaataat 2880
cagatttcag ttttcctat gagaaactct gaggcagcca cttatcttgg ctaaatagaa 2940
cctcacctgc tcatgaccag agagcattta ggataataga ggacctaact gaaggaatcc 3000
ttgtatatga aaggagttat tttagaaaag caaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3060

aaaaaaaaa aaaaaaaaaa aaaaaaaaaa agg

3093

<210> 1470

<211> 2898

<212> DNA

<213> Homo sapiens

<400> 1470

attttcctgc ctcagcctcc tgagtagctg ggactacagg cgcccgccac cacgcccggc 60
taattttttg tatttttagt agagacaggg ttttaccgtg ttcgccaaga tggctctgat 120
ctcctgacct cttcgtccgc ccgccttggc ctcccaaagt gctgggatta gaggcgtgag 180
ccaccgcgcc cggccggtcc actaattctt ttaaactctg taaggcattt tttttcctgt 240
ttaaatatat atcgacatta gatagctttg gctgtggcaa agaggacctg ctattgtagg 300
tctgtgggct ggcagtgact gggcggggct catctgagat tggcggggct cggctctgtg 360
ccatgtactg tctcattccg gaacatggac ggaaggcggg gtcgctgttg ggcattgtgt 420
tctcaggagg gcaagcaaag ctctggggca ctgcttctga aagcctctgc tcacaatcgg 480
cagctgacac ctgcagacaa tctccactgt tgcaagatgt ccctcttcat ggagagctgc 540
ctgaagctga gaagggtgcg acggacctga aggctgcaca gcgccgggtc ttaccaagg 600
ctcaaggtga ccgctgcctg gtttctgctg gtgtttattc aaagcccaag ggctctccag 660
tcagcaagtg gtgaatctag tcagacatgt gtcctacgct tcagggaat gagcttcccc 720
tcagcctaag attccattat gacattagtc tctggtcaca attatctgaa gccttgcagg 780
atgcaccatt ccacttcate ctgtcttcat cacaagaaga aaagtccaac atctggaaat 840
caccttacta cacaagattc tcaaatagta cttccttcct aggtaatgct gtttttaaag 900
aaagagcatt ctttgaaccg tggcttcccg tgacattaat gttgtaggat gaaccacagt 960
taaaggggct atgaagaatt cccatagagt gatcatacaa ttttcttttt gtaatctatt 1020
ctgcttttgt agcaactgtc aaaacagctt cactatctat gtttacatta aaatttggaa 1080
tcagtatctc aaatcctgat tacccaaata agtaccaaac ttcattcattt aagcctactg 1140
aaatattccc tcgctgtctc tagagacacc tttatctaaa caatatcaga gctgaacatg 1200

ccattcttcc ccaccctgct tctcttccag ttttgtgtaa ctcggttatt gatgtcacca 1260
tcaccagttg ttcaaaccag gaacttgaaa cgcactcttg cccctttcct ctcacgcac 1320
tccaatattc aagccaccgc caagttttat gcattcttct ctcaaatttg gaactgtctc 1380
gctattttctt cttctatttc attaaaaacc cctattcatc aagggccctc ttaaaataaa 1440
agaaacttat atttaaaagc aatttagagg caagaagtgt aaatttttct atcaacttca 1500
gtttttactc tattgaattt attaaggttg attaactcat gaatatttc ttaaatgttt 1560
tacagcatgg gacactcact atataaccaa atactgcatt ttcactaaga aaaattacct 1620
caaacataac tcatatacct ctatttagtt tttttatgtc gttttcattc ttctttctga 1680
agaaacccaa catttcttct atcaaattac taatttttag ttttctccaa tatatccatt 1740
ccaattagtt cttccccaag tcaacacaat tcatgctgcc tttatttate taactaattg 1800
tataacagtt tctcaaactt gttttcaaaa ttaaatatta tttccttgac ataatagttt 1860
ctaaaagata ctccacaaat ctagaaaact aatttctatc ttgaaacaaa gattacatta 1920
agttttttta caactatate acattgtcgg atgggtgtgt actggtgatg aaataaaagc 1980
tgcaaggatt ttttcacata aactctgtga aaacatttcc tcatatgtct gtgcagtcaa 2040
tgttaagtgc tataaatcca tctagtgtgc acttagattt tagcatttat cattctagtt 2100
catatattta ataatctcct tcttccatat gtatacatag taggaagaga tcctgaagga 2160
caggccaaag ttcattaaaa aagtattcct agtgcttact accatgtcta ttcagtaaat 2220
aaataaagag ataaacatat ttcttaaaga tttttggtag attttggtta gacctcctcc 2280
cattaaattt tattctatgg ttcaaactct ttgaaataaa tttatgttct attttatctc 2340
acacattgga ttgttttctg agcatttttt catgcatggc cttgaaaagc ttcctttcta 2400
catttttate taaaatactt gtaaaaatac tgatcctgaa atatgaaagg agatccctgt 2460
attgcacacc tggaaatctc tggctggaaa tgtactccat tagcagtga attattcagc 2520
ggtgaaagat caggattgtc ttcctaagaa tgcatttcca cttttgtggc ttcactctta 2580
ggtgaggctg taagaaacac aaagcggaac aaagagggat gccaatattc atgatattct 2640
ttgactcttg cgtctcctca ggctgtggca gtgtgggaca gccctgctat gcctacatcc 2700
tcaggctcag gaggaagcat caagctttgc tccctagacg aagctaaaag gatatggaaa 2760
gaaaagtga cagaggtgcc atgctcagaa cacaagggtta gagtggggtg aaagatacat 2820
ttgaggcaat tctgaaatgc agtggctttt tcttagagct gttctcaacg gagaatctta 2880
cttctgcttc ctttacct 2898

<210> 1471

<211> 2913

<212> DNA

<213> Homo sapiens

<400> 1471

aataactttg	aaatgagttt	gttgcctaca	acatgccttt	ctccaactgg	aagaaggtgt	60
gggtcctgtc	agaaaactcc	agagcccgtg	atcaaagcga	aggatctatc	agcccagcaa	120
gtgccagctt	cactaaacaa	aacctccctg	aaagaaatct	caggggaaag	gctgagctcg	180
atccccgaag	catctgaata	tgactggcga	aactatcagc	caagccagat	gagtgaatcc	240
gagttacaga	tgctagcaag	cctacgggtg	caacaaaatg	aagaactgga	ggatgctggg	300
acctcccatg	gcctgagtg	ctcccagggtg	gacaactgta	atgtcagcat	aagtaccagc	360
agtgacgaca	caaccacctg	gaactcctgc	ctgccacccc	ctgtcaacca	gggtcgccac	420
tatcagaaaag	aaatgaaccc	accttctcct	tctaataccc	gggactgggt	aaatatgttg	480
agcccaccaa	tcgttctctc	cagtcaacag	ccggctgagc	agcgtccaga	ttcctgtgaa	540
agtttgagt	ttcaaggatg	atttaatccc	agaaagctgg	agagcttgga	gacatccaag	600
atgctgacaa	atggaccacc	gaagaaaaag	cacttagcac	atgcacatgc	tcacaaaaat	660
gcaataccat	gctatggctg	ctcattctgt	ccacaaagat	tgcagccttc	tatgcactct	720
aactgcattc	tgccacctgc	accctgtggc	ccacttgaaa	tgaagtttga	ctacatgacc	780
tgcttcttta	gccaataaaa	tgtgagcaga	agtgatgcac	ttccagggtga	cagatttaag	840
aactggcata	ctttgccact	tgattttttt	ccactctaca	tagcaactgt	aatgttcaag	900
atgctggctt	ctccatcagc	ctgcatccca	gaacggggaa	aacaaagtgg	ccctgggaaa	960
aagatgaaaa	cacaactttt	ctatcaagcc	caatagattg	aagtcaagag	agagcaacgc	1020
acgtcttgaa	aagaactgag	tgggctgggc	gcggtggctc	acgcttgtaa	tctcagcact	1080
ttgggaggcc	gaggcggtg	gatcacctga	gggccggagt	ttgagaccag	cctgaccaac	1140
atggtgaaac	cccgctctta	ctgaaaaaat	acaaaaatta	gcttggcatg	gtggcgtgcg	1200
cctgtagtcg	cagctactcg	ggaggctgag	gcaggagaat	ggcgtgaacc	caggaggcgg	1260

agcttccagt gagccgagat tgcgccactg cactccagcc tgggcaacac agcgaaactc 1320
cgtctcaaaa aaaaagaaaa gaaaagaact gagtgtaact gtgggcacat gaagctgatc 1380
ggaattaaat agataagaag ccaattaagt ttttgagaga gttgtatagc cagagaaatc 1440
aggagcctga actagaaata tttacaactg ttcaaaatit aaagctaccc tgggccctcc 1500
ccctttcccc aggcaggagg caggctgaga aagctgttct gcccacaagg aggacatatt 1560
cttcaatgct cactttagat gtgggcaagg aaaggtaaag gaaaatttgc agaagaaaga 1620
accaaattgga ctgaggagca acagaatgag aacactgtag gatagcactt cctggccccc 1680
tatgggaggt ggagccaagt catctcttct aatgggtgta gtggaagtga tgggtccttc 1740
tcctcttttc tgatgggtgt agtggaagtgt atgggtcatt ctcatctgtt ctgatgggtgt 1800
gagtgggaagg gatgggtcgc tctcatctct tctgatggcg tgagtgggaag ggatgggtcgc 1860
ctctcatctc ttctgatggc gcgagtggaa gtaatgggtc attcttgtct cttctgatgg 1920
tgtgagtgga agtgatgggt ccttctcatc tcttctgatg gcgtgagtgg aagtgatggg 1980
tcattcttgt ctcttctgat ggtgtcagtg gaagtattgg gttgttctca tctcttctga 2040
tggtgtgaag ggaagtgatg ggtccttctc atctcttctg atgggtgtgag tgcaagtgat 2100
gggtccttct catctcttct gatgggtgta gtggaagtaa taggtcattc tcatctcttc 2160
tgatgggtgt agtggaaggg atgggtcact ttcatattatt ctgatgggtgt gagtgggaaga 2220
gatgggtcac ttctcatctat tctgatgggt tgagtgggaag ggatgggttg ctttctgtct 2280
gagtgtgttt ctactttcc agtgagaggt cctgcagaac actttattcc ttctggctta 2340
aagactttat cattctgcca gactggatcc ttgagagcct atgataagta gagtgccctt 2400
gccagcccat gacagcatgc tgtgtggaca agaaacaaac ttctattgta ttcagcttag 2460
atttgagggt cgtatgcttc tgcattacct acttatact gataacccat tggagcaaaa 2520
aatcccatct atgaagaaac tccaatgatt taccctatat agttcttctt ctgaatatgt 2580
cgtatgcctt acctagtga tcttggggct aaaatgggtat tgaaatggtc agatccaatc 2640
ctgagccctt agtcttatga actaggcctc ctctaacagg cagtgtctag cttccatcat 2700
tcccagacag tggcccaaga tgaaagaaga cttctcttct ccagcttagc ttgaatcaca 2760
aagcaatcca ttgtttttgg ccaaggggat gtgtactctt tttaactcag ggtcccaggc 2820
tttaggggtgc acgcgatgga aaagaactca cttgttaactg ttgcaccttg agttcttctt 2880
gttccaaaaa gctccagaaa gaagctcagc ccc 2913

<210> 1472

<211> 2913

<212> DNA

<213> Homo sapiens

<400> 1472

aataagcaca	tggacaagtg	ggcacagact	cacaggccag	atggacctcc	agccacggcc	60
gggccagact	cgtggacaca	ggcgcagtgt	cacatacaga	ccacggggag	acatggcact	120
agggggacaaa	cggacgtgac	accacaatgc	acagggcagg	ccacagagct	cgagggacgt	180
gggcaggggc	cttttggcat	ttctgcgctg	gaatcatgtg	agacaagggt	ggtggccgct	240
ctggaggtgc	ctgggggggtt	ccctcatgac	ccctctgggc	ttagtccatc	ctccacactg	300
ttgtgcagct	tctccacctc	ctggtagagg	ataaatactg	ttacccttat	ccctggtcac	360
atccaggggag	acgcggtcca	gcggcccagg	cgggggacag	tgccgttcta	gaggtccttg	420
agccccctcct	tcctcaggat	ctgcagccat	aggccggtgt	gttccgcatt	tgtgctgctc	480
caggccccgc	atccggtctc	gatcccatcc	agaggagcgt	ttcccaagac	actggctgca	540
cccacaatgg	ctccgaagac	cccagcgacc	agcgggtcca	tgggcttgct	ggggttgtcc	600
cctcggtacc	agctgtgcag	ggaggtcagg	aggagaagca	gacggcctgg	ttccagccct	660
gctttagcgt	gggtgccatg	aggccccggt	gagtccccctt	gttctcgcac	aatctctcta	720
acctggtggg	agactcctct	gcactggagg	tctgggaagg	tctggccgtg	gatgaacttc	780
accttgatgg	tggccatgga	acatacgacc	accatggcct	cggccacgcc	agcgccctgg	840
ccgcaccgca	gccagcgctg	ccgtcaggcc	gtccctgggc	atcccgcgtc	tggctgctgt	900
ggaactggaa	cattcagaac	ccaacgccgc	cctggagaca	agagccgcag	agcagggagc	960
cgaggccgcg	gtgccggccc	gggacgcat	gaccgcgaca	gtgcgcacgc	gggatccatg	1020
cgcggtgccc	ggctggtgcc	agcgctcgtc	cggctgcagc	tacgacctcc	cgcgctccgt	1080
ggggagcgga	cgccccattc	aatgccgccg	gccaggccgc	ctgctggtgt	cgccttcccc	1140
ggagcctccg	ctgggccttc	ccggacgcgg	cgcggcgtgg	ccacggcggg	cgggaggcgg	1200
gcgcccgtg	tgatctgaag	tcccagcctc	ctaaactccg	cactggcacc	ttaatttggt	1260
tttaacacaa	atgaagatct	cactaaagat	aaaaagggat	gtcttggctt	ctaatttttg	1320

ttaaaagcaa tagcatatgt tgtataggat agtgcattgg ggtaaacttt ttttttatta 1380
tttttatttt ttcacagcc cactgacatt gaaaggggat agtttttagg ttattgacga 1440
gcagttttct ctcagataac tgccttagta taggggtttg tggcatgtt gatgagaggg 1500
taggctgggg ttaaaagtcg ttatggcagt aacaaccttc tgaggaccag gaaattcaaa 1560
tccctctcat gatactttgc taatatctcc cgagtttgct gtgccttccc tttgtgcctc 1620
ttcccacacg tggtttcttg cacttggccc agctatattc cactgttttg actccatgct 1680
tcttagcctg gtggcagtgg tgaggagtg aggagatctc taatgttctg aggaagcctc 1740
agacttagca ctgtgaactg ggggtgtgggg ttactgaccg ttgaagagtt tcctgcccac 1800
cctgtacatg caatgccagg acaagagcac attcctgtcc ctccttgtcc atggtagggg 1860
aaacgtgctc cttctccatg ctcttaactc ccagttgaag tgggccttga acagtgcctt 1920
gtaaattaat ggtttctttt ctttatggga gatgcatctg tgcagaaatg cgggtgttgg 1980
ccttgttcc taccctcag ttccatgagc ttttccccag tgccctttgg ctcaggtttg 2040
gatgctcttt ctctgcagat taggcctcat gttatatagg agagatgtga gggctgtgtc 2100
tccagagttg cagtagtgga tgggatagtg gtccctcccc atcagcactg tggggtaagc 2160
atcctcagga ttctaacccc atcttccctg acaggccttg tagggttcc agaaaaatta 2220
tacacaacgg tataaacctt acgtctgtag actccagggt ttctcattct cctcaccac 2280
ccacacacag ccaccaggaa ctagttcaaa agttctggct taattttacc agtttacatg 2340
gtcttcaggg tacacataaa agcctggagc ctgtgtgacc tgcaggcttt ctgcatcccc 2400
tgatgttggg tttgtagtct gccctgtgac ctcagttctt taaagggtc aggagaaacc 2460
atccattcat ttgaagttc tccagcattt ttgtttgttt gtttaatgtg taggagcaac 2520
tctttgtcag gtctctatat ctacaaactt aactcagaaa ctaatatatt taaatatatt 2580
tcttttctat catactttta gtgtctctct acctatgcta attgttcttc agtatTTTTT 2640
atatttgtat gtctttatct attttaaaat caggtttaat tccttcttaa tcgaattaat 2700
aacttttcat ttatttcctt acgtaacttt cttttcagac gtttaaagta ttgctgtgtg 2760
tttcaagtgg aggaggtcat attacaactg acatttgtcc ttgactactg gacatatcac 2820
accagccctg attgcagtta tacttgaagc cagatctacc cttaatgtat attcatttta 2880
ctattcaata aatattaact tatcatgaat ggt 2913

<210> 1473

<211> 3082

<212> DNA

<213> Homo sapiens

<400> 1473

```
atgctcgagg tgtccggtga ccgaaacact cttagctggg tgcagggtgc ggctcagggc 60
gtggtcaccg ggggctactt agggccgccg gtgcggggga cgacgcaaag gttaactgcg 120
agctgccggg cactcagcgc gggatcatggc gtggatactg gactgccttt tcgcctcggc 180
ctttgagccc cgcccccgcc gtgcaaaaac aaccagaggc tgctctgctt gagggtgaag 240
ccgcctccca gttttccctc cccctctacc cccaccccca tagttctctc caccaggtcc 300
agtgacaatt ggatgatgca gccttgataa tcatccgatt ccagaatggg tggctgcatt 360
ccttttctga aggcagcaag ggcactgtgc ccagaaatca tgcccccttt gctgtttgtg 420
tccgccttca tttttttagt gagtgtcttg ggaggagccc caggacacaa ccccgaccgc 480
aggacgaaga tggatcgat acacagcctc tctgagctgg agcgtctgaa gctgcaagag 540
actgcttacc acgaactcgt ggccagacat ttctgtccg aattcaaacc tgacagagct 600
ctgcctattg accgtccgaa caccttggat aagtggtttc tgattttgag aggacagcag 660
agggctgtat cacacaagac atttggcatt agcctggaag aggtcctggt gaacgagttt 720
acccgccgca agcatcttga actgacagcc acgatgcagg ttgaagaagc caccggtcag 780
gctgcggggc gtcgtcgggg aaacgtggtg cgaagggtgt ttggccgcat ccggcgcttt 840
ttcagtcgca ggcggaatga gcccaccttg ccccgggagt tcaactcgccg tgggcgtcga 900
gggtgcagtgt ctgtggatag tctggctgag ctggaagacg gagccctgct gctgcagacc 960
ctgcagcttt caaaaatttc ctttccaatt ggccaacgac ttctgggatc caaaaggaag 1020
atgagtctca atccgattgc gaaacaaatc ccccaggttg ttgaggcttg ctgccaattc 1080
attgaaaaac atggcttaag cgcagtgggg atttttacc ttgaatactc cgtgcagcga 1140
gtgcgtcagc tccgtgaaga atttgatcaa ggtctggatg tagtgctgga tgacaatcag 1200
aatgtgcatg atgtggctgc actcctcaag gagtttttcc gtgacatgaa ggattctctg 1260
ctgccagatg atctgtacat gtcattcctc ctgacagcaa ctttaaagcc ccaggatcag 1320
ctttctgccc tgcagttgct ggtctacctg atgccaccct gccacagtga taccctggag 1380
```

cgtctgctga aggccctgca taaaatcact gagaactgcg aggactcaat tggcattgat 1440
ggacagttgg tcccaggcaa ccgtatgact tccactaact tggccttggt gtttggatct 1500
gctctcctga aaaaaggaaa gtttggcaag agagagtcca ggaaaacaaa gctggggatt 1560
gatcactatg ttgcttctgt caatgtggtc cgtgccatga tagataactg ggatgtcctc 1620
ttccagggtgc ctccccatat tcagaggcag gttgctaagc gcgtgtggaa gtccagcccg 1680
gaagcacttg attttatcag acgcaggaac ttgaggaaga tccagagtgc acgcataaag 1740
atggaagagg atgcactact ttctgatcca gtggaaacct ctgctgaagc ccgggctgct 1800
gtccttgctc aaagcaagcc ttctgatgaa ggttccctctg aggagccagc tgtgccttcc 1860
ggcactgccc gttcccatga cgatgaggaa ggagcgggta accctcccat tccggagcaa 1920
gaccgccccat tgctccgtgt gccccgggag aaggaggcca aaactggcgt cagctacttc 1980
tttccttaga tgtttttcc tctataaggt gccagacagg ggaaaagggt ggggggtacat 2040
ctgggatgct acaggaaaca ttaaggagag agttgaaggt aaagatctga aggtaagaag 2100
gagtccacc tgatgctcgg gtcaggatga gaattccaaa cacactgcca gccccttcac 2160
tgggggatgct tggctctctc tgctggtaaa agcagagatg tttctgtgtc atgcccagc 2220
tccccgggtgc taccttgctt ttctctttta cccctgatct tggctttctc tctctctctg 2280
cagactttcc ttttaattgat gtgacatttg tggtaaacac ctttcccagg gaacctcaca 2340
aatcttgaga tgctttccct tcccagatg ggattgcatg attccctgac tttcctaccc 2400
tcctccagag agctcagttg gaaaggccct caagaggcat gctagaacgt taggtcagcc 2460
tactgacagc tgacaaacaa ttaatgcgaa atcatgtcac accaaccat agccgtgtcc 2520
acgcagcaac tccaccacct taggatttcc ccctccaaat tattcagacc aatggcttgc 2580
caaatggcct ctcccaaat tctgtacagt tttgctcagg tcacgccaac agggaaacct 2640
caagtgtagg tctaattagt gtttctggga tccaaagtta gaggaaaatt tagattttat 2700
tgcctggatc tgctttaaag acaattggtg ttacaccct cttgtcagca aaacagctag 2760
ttaggtaagg acatatagtt ccaagtaggt aaagtcactt gattacaaat gttcttaact 2820
atcgtctctg taattccttt atacaggaca gtacaaaatt gtgggacatg ctctggtaac 2880
acacagatat gggttgcata tgatccagaa ttacagctga tattatggat gacaactgct 2940
aaggccata aaatgaagac tgtattgtat tgagggatag aaattgatca tttaatgggt 3000
aacaactgct gagctcaaag atttgtgatt gttaaaactt ctctggcatt taatcattaa 3060
taaacatctg tattgtgaca gc 3082

<210> 1474

<211> 3578

<212> DNA

<213> Homo sapiens

<400> 1474

agaaaccatc	gactctgaga	aaaaagagag	gttcggccac	cgagaaactc	cgtagcacia	60
gtgctgtggc	agaaaaaccg	cctactccgc	gccacaggca	aaacagccaa	tggaaccccc	120
aggtgctgcg	accgtgacac	cggcactaga	gggtctcggg	tgagaaaagc	ggcgccacgga	180
gaccaggaaa	ctatgtgtag	cacaactagc	agaaaaccgt	ctggtcggcc	atccgggaga	240
aagcgcggat	cagaaacaag	cgacttcgat	gcagggaacc	gcgcagccac	tgaagaaagt	300
gaccacgtg	gcagtgggtg	cagcgaagaa	ctgcagtttg	gacggcagct	gtggggatgc	360
cacagagaaa	catgcaactg	cactgaagta	catccagctc	cgcggaacta	gtgttcatat	420
gatcaagaaa	ccgccagttg	ggctctgcta	gaaactttta	gtcctccctt	aacggctatc	480
ctaccacaaa	cagacaaatg	cctttaccca	gcacctagcg	gtgctgagac	ccgcctgggc	540
cagcacagag	cgagagcag	tacgggtacg	gagaaacgcc	ggactcagtg	aaaccagcct	600
tgcctccagc	ggattccccg	gcttcgccgg	acgccacagg	cagagtgccg	cggggaaacc	660
tctggctccc	taaaccgatt	agattgtggg	agtggggggg	acactcacia	gttgtgtgga	720
agggaaccag	cggcaatggg	acccggcgag	cacttgcccc	cagcaaatgc	ctgcgctgct	780
gcaaaaaaac	aacttttggc	gcaaagaatg	ttgcggccag	agagcatccg	ctgtcgtgta	840
caaaggagta	gcaatggcaa	tgagaaaccg	ccggcgccac	ggccgaccgc	ggcggtcac	900
gcctatgatc	cttgcaagtt	gggaggccga	ggtggggcgca	ttacttgaga	tcaggagact	960
agcctggcca	acaaggtgaa	accccatctc	tactaaaata	caaaagatta	gccggttgtg	1020
gtggcaggca	cctgtaatcc	cagctactcc	ggaggctgag	gcagaagaat	cgattgaact	1080
caggaggcag	aggttgcaat	gagccaagat	cgcgccactg	cactccagcc	tgggagacag	1140
agtgaagctc	gtctcaaaaa	aagaaagaaa	ccgctggcgc	cgggaaagga	gccgtgcagc	1200
gatggacca	tggtgcgctc	cgtgctacca	aagtgtgtgt	gcctctaccc	actctcgatt	1260

cccaaggctg tttttcgggc ttagggaagt ctgttatatt tttatttctg cttctttctt 1320
ttcttttctt tatttctttc tttctttttc tttctttcat tctttctttt tctttttctt 1380
tcttctttcc tttctttctc tcttttcttt ttttcttttt ctctttattt cttttttctt 1440
tatttttttt ttaacagtat cttgctctgt tgcccaggct ggtgcagtgg cgtgatcact 1500
gctcagtga gcctcgcctt cttgggctcc agctatcctc ccgcctcagc ctgtggagca 1560
gctgggacca caggtgcgcg acaccacacc cgactaattt tttgtagttt ttgtagggtc 1620
tcgttttggt gcctaggctg ttctcgaact cctgagctca agcagtcctg ccgcctgggc 1680
ggactaaaat caciaagcgc tagaatcaca ggcatgagcc accgtgctgg gagggaagtc 1740
tgtattgttc ctgcgttcaa cccagtgcct agtgcatgag aagaggaggc agtttagggg 1800
cccagaacca agcggatggg gctgggtgca ggaacaaagt aaaaaccatt ctgattgcca 1860
acagctgcct acgcaggaaa cacccttcca acctccgtgg cggggctctc ccaggccacc 1920
cctcgggtccc agagtctcct ccccgctccag agctctcagg atcctacaga aggggcggac 1980
aactcttccc ttccaaactg gaaagtcggc ctaggtttcc gaggataatg aaaggcacag 2040
cgttttttga cctcgacttc aggctgacc cccactctc tcggtcccct accttttctg 2100
cgggatgtaa ctctgtggga accgctcctt tattctgatg attaactgtc tgatatectt 2160
gatatttggg gatagtagat gaaagagagc aggagagaaa aatggacggc aagactccag 2220
ctcagaaggt gggaatgatg gcaaaagtcc gctacctctc caagcccaat aaacatctca 2280
aactgctcta cacttttctg tacccttgat ctgtgaaatg gatcactgac gttttctgtc 2340
tttcgggaaa tgcaaagcag gcgaattttc aagcgcttga attccctctt tttctactt 2400
ttcagtcaga gtggagctaa aaactccttc cccataggaa atatggaact gcctctgccc 2460
ggaagaaaaa cgtccctttt ccctaagctt tcacatttcc cgaaaaatgt acacatccgc 2520
atgaaatcct cacaagagac ctacagaccc taccgggagc gttcctgtca ctacaaaaaa 2580
tttaaaaatt agccggatgc ggtcgcgggt gcctgtagtc ccaggtacca gggaggctga 2640
ggtgggagga tctcttgagc ccaggaggtc caggatgcag ttaacgatga tcctaagacc 2700
acgaggcaat tggaggatcc tcaaatacca gggagaaact agctagcaga catagtatgg 2760
tgggagggga agatcaaggc aaatgccttg ggagtgggtg agaattgcga cttcatattg 2820
gatctcctga cctgtgaagg cctttttcta ggctcctctg gacctgtcct ctgcccagg 2880
tcaaccagaa aaggatggaa tttgttgcat ggtatcttca gggtagggtt gggagatgat 2940
gcgggaacgc tcatccctgg tcttaggaac gggagaacaa aggaaaaatg gcatcatttc 3000

cacctaaaaa gttacaagca cttcaccaga aggaacagcc caggcggagc ctttgtaaaa 3060
gaaaagcccc acccactgct tcgcactcct catttccacg cagcagagca ttttagtggc 3120
aaagctgagc gggagccata gttcactcct gtaatcccag cactttggga ggcccaggcg 3180
ggaggatcac ttttaaccac gcgttcagga ccatccgaag cacatagcaa gaccgtgcca 3240
ctacaaaaaa ttttaaaaaat tagcgggatg cagtcgcggg tgcctgtagt cccagctacc 3300
aaggaggctg gcgtgggagg atctcttgag cccaggaggt ccaggctgca gtgaacgatg 3360
atccttcacg gcaccactgc actccagcct gggtgacaga ctgagacttt gtctcaaaaa 3420
ataaaatgaa ataaaaatac agccgagatt aggaactctt taagaagggg tcacctgaga 3480
cattattagt ataccattaa caggagaaaa tgctgcaaat taaagtatca taatggtagg 3540
aggctacca ttttaaaaata tatacctgtt tcagagac 3578

<210> 1475

<211> 4515

<212> DNA

<213> Homo sapiens

<400> 1475

actcagcaac tgccatacag caaaaggagg gattgcaact accatgcagc aactgccacc 60
ttgaaagaga aggggttgaa gagtagtctc taatatccag caccagttgg ccttaggttc 120
cctgcctcca gaccttattc tcttgcaaca tcaccactgg ttgaaacctt actacaaatc 180
aagctgtgaa gtcactggag ccctgtagca agtcatgtcc ctgtaacgat gagttagctg 240
acagctaagg ggcttgccata aaccacacag gtcagaagtt gagtagcagg ggcctaggag 300
ggctcgaagc cttcacagcg atggcagaga agcgaccctt gagaaccctg gggcctgtga 360
tgtatggcaa gctgccccgc ttagagacag actccgggct cgagcacagc ctgccccact 420
ctgttggtaa ccaggatccc tgcacctaca aggggtccta cttctcctgc cccatggcgg 480
gtactcctaa ggccgagtct gagcagttgg cgtcctggac cccatacca cccttggtact 540
ctaccggtat ggcaggaccc ccacttcagg cagacaacct gctgaccaac tgcctgttct 600
accgctcgcc agcagaaggc cctgagaaga tgcaggactc cagccctgtt gagctcctgc 660

ccttcagtc ccagcctcac tectaccag gccaccact ggcagcacc aaacctgtct 720
accgcaacc tctgtgctat gggctctcaa cttgtctggg ggaaggagca gtgaagaggc 780
cactggatgt tgactggact ctggcgactg ggccccgtt gccctcagct gaccaccct 840
gctctctggc cccagctcct agcaagggcc agactctgga tggcaccttc ttgcgggggg 900
tgccagctga ggggtccagt aaagactcct caggagctt ctcccatgc cagcccttc 960
tggagaaata tcagaccatc cacagcacgg gcttctggc ctccaggtac acaggtcctt 1020
accctaggaa ctccaagcaa gcaatgtctg aggggccctc aagtccttgg acccagctgg 1080
cccagcccct ggggccacc tgctaggaca cggggcccac ccactacca ccacccacc 1140
accaccacc ccacctcca caggccctgc cttgccctcc agcctgtgc caccagaga 1200
agcagggcag ctacagcca gcactccac tgcagcctt ggggggccac aaggggaccg 1260
ggtaccaggc tgggtgggctg ggcagcccct acctgaggca gcaggcagcc caggcacctt 1320
acattcccc actggggctg gacgttacc cctacccctc tgccctctc ccagcacct 1380
ctccaggcct caagctggag ccgcctctca ctccacggtg cccattggac tttgcccc 1440
agacactgag ttttcttat gccgggatg acctctctt ctatggagca tcccctgggc 1500
ttggagggac accaccttc cagaacaatg tgagggctgt gccacagccc ggtgccttc 1560
agagggcag ccagcctttg ccagcgagcc agccctgtc agagcctgtg aggcctgcac 1620
aggaagccga agagaagacc tggctgcca gctgcaggaa agagaagctc cagccccggc 1680
tcagtgagca ctctgggccg cccatcgta tccgagacag tccagttcc tgtaccccc 1740
cagcactgcc cccctgtgcc cgggagtgcc agtctcttc acagaaggag gacgcaaggc 1800
caccagctc tccaccaatg cctgtcattg acaatgtctt cagcctggcc ccctaccgtg 1860
actatctgga tgtgccgga cccgaggcca caactgagcc tgactctgcc acagctgagc 1920
ctgactcagc cccagccacc agtgaaggctc aggacaaagg ctgcaggggg accctgcctg 1980
cccaggaggg cccctcaggg agtaaaccct taaggggctc acttaaggag gaggtagccc 2040
tggatttgag tgtgaggaag cccacagcag aggcctcccc tgtcaaggct tcccgttctg 2100
tggagcatgc caagcctact gcagccatgg atgtgccaga tgtgggcaac atgggtgtcag 2160
atctgccagg cctgaaaaag atagacacag aagcaccagg cttgcctggg gtgccagtga 2220
ccacagatgc catgccaagg accaacttc acagctctgt ggccttcag ttccgaaagt 2280
tcaagatcct ccgtccggca cctttgcctg cagccgtggg cccgtccacg cccacctcag 2340
ctcctgctcc cacacagcct gacccacc ccacatctgg gccattgga ctgcggattc 2400

tcgctcaaca gcccttgtct gtgacctgct tcagcctggc actgcccagc cctccagccg 2460
tagctgtggc ctccccctgcc cctgtctccag ctccatcccc tgctccggct cgagctcagg 2520
ctccagcttc agccccgggat ccagctccag ctccagctcc agttgcaggc cctgtctccag 2580
catctacttc agccccaggg gactccctgg agcagcatTT tacaggacta catgcgtccc 2640
tgtgtgatgc tatttctggc tccgtcgccc actctcctcc agagaagctt cgcgagtggc 2700
tagagacggc tgggccctgg ggccaggctg cgtggcagga ctgccagggt gtgcaggggc 2760
tgctggccaa gctgtgtct cagctgcagc gcttcgatcg caccaccgg tgcccccttc 2820
cccatgtggt gcgagctggc gccatcttcg tgcccattca cctggtgaag gagcggctct 2880
tccctcggct gccaccgct tctgtggacc atgtgtgca ggagcatcgt gtggagctgc 2940
ggccccaccac gctgtcggag gagcgggcac tgcgggagct cgccctgcca ggctgcacct 3000
cacgcatgct gaagttactg gcgctgcgcc agctgccgga catttaccac gaccttcccg 3060
gcctgcagtg gcgcgactgt gtacgccgcc agctgggtga ctttgacact gaggctggag 3120
ctgtgtcctc ctccagagccc actgtggcca gagatgagcc agagagccta gccctggctc 3180
agaagtcacc ggcccccaag gtcaggaagc caggcaggaa gccaccaacc cctggcccgg 3240
agaaagcaga ggagctgct ggggaagagt cctgtggtgc ctccccctacc cctgctacca 3300
gtgccagccc acctggcccc acactgaagg cccgcttcg cagtctgctg gagaccgcct 3360
ggctcaatgg cctggctctg ccacactggg gccacaagtc ctcaagacca gaccagccct 3420
caccctgccc acagctgctg gacagccaga gccatcacct gtagcactgg ttgccagtgc 3480
tgtgtgtata gcagtcactc tccacccttc cttctgcct gccagctgc cccggggcca 3540
cgagtggatg ctggggctgt ggctgtctcc ctggaggggt tccatctctg accctgtggc 3600
ccattcaggg tgggctgaag agccccctgag cttttaacgt gagggctctt attggatagg 3660
actactccct atttcttgcc tagagaacac acatgggctt tggagcccga cagacctggg 3720
cttgaatccc ggctcgtgtt cttgctgcag gacctgggca agaaacttca cctctgctga 3780
gccctcattc cccatgtgta aaatgggaca acgcaacctc cctcacaggg ttgttgtggg 3840
gatgtgcct gatacatacc ctgtcaccat ttggtctctg ctccctctct gggacagggc 3900
ctagaattgg aggcagagaa ctttctata gaaagtcttc gtgtgtccta ggacttggct 3960
atcgtagagt ggtaccttag gcagtggatg tgactcacac tttcaggagt cccccccag 4020
catttgggggt tgggttggcc ctactccagc ctggagctcc ctgagggagc ctgcactccc 4080
tgctcccaat ccccgctact ggtgcaggga tgcagcctgg agctggcgct cttgttctgg 4140

gcctgctgct gccgccaccc caggaggccc caggcctgtc ctgaattgac atcagtgttt 4200
 ccctgaactg cctccccac ccctggcatt atcccaggaa acttatgttt tctagaagct 4260
 aagcagctgc tgggactcag ggactgggtgc aggtaggctg agtggcagct cagtcctaga 4320
 aggtctctga agatctggac tgaggaccct gctactcccc aagccagagc ccatcagcca 4380
 ggctgctgt gagccacctg cctgtggagt gctgagctca accaaaggct ggcaagctct 4440
 gggcctcatt taagggattc tgatgagccg atgggccctg gaggcagccc attaaagcat 4500
 ctggctcggt tttgg 4515

<210> 1476

<211> 3028

<212> DNA

<213> Homo sapiens

<400> 1476

ctgcgatctg tgctgggaaa gatggggaag acgcctgaga gggaaacttg actgcgcctg 60
 gacagagaaa tgggtagact ggaatctgtg cctgcggcgg gcacctggca ggggccggtg 120
 tgagcagaag tgtgggtgtt ggaatgacgg tgccgacccc aggttggaca gggggctgcg 180
 aaatggacca gggagccctg ggatcaggcca cgatccacgc ctggcctctc cctccctccg 240
 gctccccaag ttcctacca cggccactgg gcccaggac cctgggaacc agccgtgtgg 300
 ggcaccacgc aggaccctg tgccactggg tggctgctgg caggctcccgg gccgtctgtt 360
 ctggaacagt ggaggatctg ggatcagcac cttcctgtgt ggctgtggct gtgagcccct 420
 cgcccagggt gaccactaga gcccaggact cagagggtcc agcccagact ccacagtcc 480
 cttcctttca ggagtggagg gaggcccagg agtatgtctg agccaggcca ggcagggtcc 540
 cagcccctcc cagtggttcc cggcagtccc gggctgcctt ctccaggcgg ggacggggcg 600
 gggccggggg atgcatagt gacaagctca cttgctgctt cagtctcaaa acaagtgttt 660
 ctgggtttca ttttcagctc tggctgggga tggaccctga cttcaaaca ggccagacgg 720
 tggcagccac aggctgagtg tgggcacctg gggcctgagc gccctcggca gcaggagtgc 780
 aggtctcccc atgaggtgtc tccccattc accccgggaa gcccagacag tggcccagg 840

tcatgtggca ggtagggtgc agggcaggag ctgcttgggg ggcctgggcc tccccagct 900
cccttcctca gagcaacca gaccctgac ccaattaggc ccaggcccag ccagcggttg 960
gggtcattcc aggtgcttct gaagagaagg gtatggctga agcctcctct ggggacagca 1020
gccccctgt cctgggaagt ggcctgtagg aagctgagca tgggcaggca gaactggacg 1080
tcccagttct ttccaaacct cctcactggg ccaggcccaa aaggacacct catggcgggc 1140
cctgctgggc tcacggggga ctcagggttg gaccccagta ggcctccgcc aggggtgtgt 1200
gggcacccctc tctgtggaag ttaggaaggg ctgttgaggg aagggtggcat ggcgggctgg 1260
gtcttgagcg gtggggagga gttgggcccc tccacttgta gcgggggcaca gggctctggc 1320
tgaccaccag cagggcaggc ggagggaagg gtccggcgcc ctcttttccc actggtgtcc 1380
tcctgctgtg aagccaggcc tgtaggagcc tgcaagcctc ggggggcaca ggggacaggc 1440
ctgacacaca gagggctcct cgggcactca tcctatagta gggagacggg ccctgggagg 1500
ggaggggagcc aggaggcagc catgcgccct ccctaagatg gaaaacgcag gggcctggtg 1560
agggcggtgc tgaccacagt gctctgcaca ccaggctact gctggcgccc cagctccggg 1620
gaacatagag tccttgggga cacagggcc ccagggcctcc agagctggga tacggtggag 1680
gggctgctgg atcccaaaca ccctttaggc ctcttcatc cctagtcagc attccagcca 1740
ggaccccggg ggccccatcc agagtcctgt cagcgggggc catagcctgt ggctgcaggc 1800
ctgggcaggt gggtgacacg aggcaggacc gaccccaggg ttctaacgcc tgctccccac 1860
tggccttgga caaatcgctg cccttttctg agcttgattc ctcacctgtg aagtgggcat 1920
caaggtaatg cctgaggccg ggtgcggtgg ctcacgcctg taatcccagc actttgggag 1980
gccgaggtgg gcagatcagc tgaagtcagg agttcgagac cagcctggcc aacatggcaa 2040
aaccctgtct ctactaaaaa tgcactgggc atggtggtgc gcgcctgtaa tcccagctac 2100
tcggatgctg aggtgggaga atcacttgaa cccgagaggc ggaggctgca gtgagccgag 2160
atcactgaga tagcaccact gcgcttcagc ctgggtgaga gcaagacttc atctcagaaa 2220
ataaaaacaa ggctgggtgc ggtggctcac acctgtaatc ccagcacttt gggagaccga 2280
ggcgggtgga tcagctgagt tcaggagttt gagaccagcc tggccaacat agtgaaacct 2340
cgtctctact aaaaatacaa aaatcagctg ggtgtggtgg tgcatgccta taatcccagc 2400
tacttgggag gctgaggcag gagaatcctt tgaaacctcg gaggcagagg ttgcgatgag 2460
ccaagatcac gccactgcac tccagcctca gcgacagagt gagactccgt ctcaaaaaaa 2520
taaaaaacaa aaaactgcct gagacttggg ggcagtgaac aacctgtgtg acacacagta 2580

ggtgctgagg gccaggcatc tgcactgttc tctttctcct ctgaacagag aggtgccatg 2640
 atctggccaa ggacacacag caatcagagg caggctggct tctctgcccc ggtcccgcca 2700
 cccggcgaca cctgtcagcc cccttgcaaa ctctgtgctc cttgaaggtg gggggggggg 2760
 ggagggcggg gtgggtctgg accccgttac aagggtattcc tataaatggc gtggagagga 2820
 ttaataatgt atttataaca catTTTggtg gtagtcgaaa atgatctata aatgtgcagt 2880
 aaatgtttta taatgttttt gtaaccggtt ataaatgata aatggcagac catagatgcc 2940
 ggatcaaata tttataacgc actgtgcgcg gcgttgggct gctacagttc agcaaagcca 3000
 ttaataataa agtggatgga aatgcacg 3028

<210> 1477

<211> 1039

<212> DNA

<213> Homo sapiens

<400> 1477

ggaaggcggc acccattact tagcagacca ggaaaggag tttcccttc cttgggggag 60
 ttagagaaca ctctgtcca ccagttcttg tgggaggctg aacagtagcc aggcctgccc 120
 gtagtcatct ggaggcttaa acgtctccct gtgatgctgt gcttcagtgg tcatgtcct 180
 tgttcacttt cacattccgc ctgtacacct ggctcctcct ttttaagttct tagaagatag 240
 cagtagcaga attagtaaaa gtactaacgt ctttgatctt tctgataagt gcatagaaaa 300
 aatgctgacg tatgctgtcc tccctctctg ctttggctac caciaaggga aaggctgcct 360
 gtcacgtgga caagtgactt gcttgacctt atcaatcact tgggatgact cactctcctt 420
 accctgcccc ttgacctgtg atacaataaa tagcaatgca tccaggcatt ctgggcccag 480
 ctgtctttct tactgtcttt gtcttgtgtc ttattttcct atgatctctt gtctccacac 540
 atgaagagaa aaccacagg ccctgtaggg ctggacctta cgtctggcac ccaatgaggt 600
 cttctctctc actgtgtgaa ggtgcgcctt gagcgtggaa ctcagcggag gactaccaat 660
 gacagattcc tgaggattgc agtcaataag cttgggtgta agcttggaca ctcagagaat 720
 cccgggggaca ccatgggaca ggccagtacc aagtgcttgg cttatttgaa ctttataaaa 780

actctccita aagaaagagg taggccgagg cgggcggatc acgaggtcag gagatcgaga 840
ccatcttggc taacacggtg aaaccccgtt tctactaaaa atacaaaaaa ttagccgggc 900
gtgttggcgg ggcctgtag ccccagctac ttgggaggct gaggcaggag aatggcgtga 960
acccgggagg cggagcttgc agtgagccga gattgcgcca ccgcactcca acctgggaga 1020
cacagcgaga ctctgtctc 1039

<210> 1478

<211> 3405

<212> DNA

<213> Homo sapiens

<400> 1478

ctgggaggag catcaggccg tgggatccag acagtccagc agctctgagg actccagcct 60
ggaggaggag ctccctctcg ccacctcaga cagctatcgc ctgccggagc ctgatgacct 120
tgatgaccgg gaactgctca cggacctaag cactggtcag gaggaggagg ctgagaactt 180
cgccccata ttggcttttc tggatcatga gggttatgct gaccacttta agagtctcta 240
tgacttctcc ttctctttcc tcacttcttc cttttatagc ttctctgagg aggatgagtt 300
tgtggcctac ctggaggcat caagaaagtg ggccaagaag agccacatga cctgggcccc 360
tgccccgctc tgcttctcc tgggccggct gagcatcagg aaggtcaaac tctctcaggc 420
cagggtgtac ttcgaggagg ccatccacat tctcaatgga gcatttgagg acctatcctt 480
ggtggccact ctgtacatca atttggctgc catctacctg aaacagaggc tgagacataa 540
aggctccgcc ctgttgaaa aggcagggtgc cctgctggcc tgcctgcctg accgtgagtc 600
tagtgccaag catgaactcg acgtgggtggc ctacgtgctg cgccagggga ttgtgggtggg 660
cagcagcccc ctggaggcca gggcctgctt tctggccatc cgcttgctcc tgagcctagg 720
ccggcacgag gaggtcctgc cttttgccga gcgcctgcag ctccctctctg gacaccctcc 780
tgcctctgag gctgtggcca gtgttttgag ttttctgtat gacaagaaat atcttccaca 840
ccttgcagtg gcctctgtcc agcaacatgg tatccagagt gcccaaggga tgtctcttcc 900
tatttggcag gtccaccttg tctccagaa cacaaccaag ctccctggct ttccttcccc 960

aggctggggt gaagtttctg ccttggcctg cccaatgctc agacaggccc tggctgcctg 1020
tgaggaaacta gcagaccgga gcaccagag ggccctgtgt ctcacccctt ccaaagtgt 1080
cctcgagcac aggtctcctg acggtgccat ccactacctg agccaggcct tggctgctagg 1140
gcagctgctg ggtgagcagg aatcccttga gtcttctctc tgcctggcat gggcctatct 1200
cttagccagc caggccaaga aggctttgga tgtgcttgag ccactgctat gctccctgaa 1260
ggagacagag agtctcactc aaaggggagt catctataac ctcctgggac ttgactcca 1320
aggatgaaggc cgggtgaaca gggcagccaa gagctatctt cgggccttga acagagccca 1380
ggaggtggga gatgtgcata accaggcagt ggctatggcc aatcttggcc acctgagcct 1440
taagtcctgg gctcagcatc cagccagaaa ctatctcctg caggctgtac gactctattg 1500
tgaacttcag gccagtaagg agacagacat ggaattagta cagggtgttc tctggttggc 1560
ccaagttctg gtgtctggac accagctgac ccatggcctt ctttggtatg aaatggcatt 1620
gctgtttggc ttaaggcatc gacatctaaa gagtcagctt caggccacca aatccctctg 1680
ccatttctac agctctgtgt ccccaaacc tgaggcatgc atcacctacc atgagcactg 1740
gctggccctg gctcagcaac tcagggaccg ggagatggaa gggaggctgc tggagtccct 1800
ggggcagctt tatcggaacc taaataccgc caggctccctc aggaggtcac tcacatgcat 1860
caaggagagc ctgcgtatct tcattgacct gggggagaca gacaaggctg ctgaggcctg 1920
gcttggggcg gggcgactcc actacctcat gcaggaagac gagctggtgg agctgtgcct 1980
gcaggcagcc atccagacag ccctgaagtc agaggagcct ttgctggctc tcaaactttg 2040
tgaagaagca ggtgatgtgt tcttcaatgg gacccgccac aggcatcatg cagtggagta 2100
ctaccgagct ggagctgttc ctttagcaag gaggttgaag gcggtgagaa ctgagctccg 2160
gattttcaat aagctgacag agctgcagat tagcctcgaa ggctatgaga aggctttgga 2220
atttgccacc ctggccgcca ggctcagcac agtcacagga gatcagaggc aagagctggt 2280
ggcctttcac cgcttgcta cagtgtacta ctccctgcac atgtatgaga tggctgagga 2340
ctgctacctg aagaccctgt ccctctgtcc accatggctg cagagtccca aggaggccct 2400
gtactatgcc aaggtgtatt atcgctggg cagactcacc ttctgccagc tgaaggatgc 2460
ccatgatgcc actgagtact tccttctggc cctggcagca gcggtcctgc tgggtgatga 2520
ggagcttcag gacaccatta ggagcaggct ggacaacatc tgccagagcc ccctgtggca 2580
cagcaggccc tccgggtgct cctcagagag ggcgcggtgg ctgagtgggt gtggcctggc 2640
cctctgagga aagctgtcct gtctctggac atttggcatg gccagactct gacccactg 2700

ccctaggctc ttaaatactc attgggaggg tccgagtcct tacctggcct agccccctca 2760
tttcacaaga agaagaatga agtccaggag gagaagggct cattgcaggc cacagaaaga 2820
tttgatgggtg cagcgatgag aattcctggt tccaggcttt gcatctggag cctttaccgg 2880
ttgactgttg ccttccacac aaacagcctc tgaaaagcac tttctccata cataattctg 2940
gagaagatga gggatcttgc cctccaggag ccttccttcc tcccccaatg aggaaatcag 3000
tactgcact ggtgcaaagg caagcagatt ggaatttggt ctcttcaccg attttctcag 3060
ggaaagaccc cttccccttg ccagcagagg aacctgtagt tttttccatt tctttcttca 3120
gaaccaaagt atgtatcact cctcatgctc acagggattg acaggagaga attcaccagg 3180
atcttagctc aaaagacaca gcctcagaat ggccagatgg attgcacgaa acctgactta 3240
gattcaccat cttcctctg ccataaggct gtgctccac ataacctccc agaagctcca 3300
gggaagcttt ccaagagcaa aggcttgga attgaatggt aagaaaatta tgacataaat 3360
tacetgtaaa tagtgtatat gattaaatat tgtccagtta cattt 3405

<210> 1479

<211> 3706

<212> DNA

<213> Homo sapiens

<400> 1479

taaaaaataa acttcagatg tttaatacgt gtgtatatat tctaggggtg aaagatttga 60
aagttgaaga tgacatctca atgaaggtga tacctatitt atctaccctt aattgtgccc 120
tgctagaaac aaagaaatca cttcctgaag aaagaatcca tccaaacaca ttagtaaagc 180
gtcatttcca agaattgtac aaggcggaca gaagcccttc attgagtgtt gtcctcagg 240
atagaatgaa agaccctaca ttcttgggga aactgcccag tggttttgac ttgattcctc 300
cagctgaaaa gtgcccttca gagtctttta ctcagttgaa ctcttatitt tcagacccta 360
gtgcttacat tttggaagtg tctactgctt tggacttgct agcagagcat cctcagtctc 420
cttgtgtttc agacggaatt tgtgatgctg gattttcctt agttatgact ccagatcctg 480
aatttcttgt ctcagaggca gaagtgagaa aagaaactga aacaaaaaag gattctgaag 540

aaatgttgaa agcaaagaag agagtttttc cattgagtcc agcgtcaa atctgagagtgc 600
agcctaagag gaaggccagc atgccccaca tgggtgcagag taaaaaggtg aacttgtgcc 660
gccccctttcc caaaagaact gcttccagag cagacaacag ctcggactct ccaacaactc 720
ttaagttagt taaaggacag tttcctcaga aaagaaaaag aggttaagcac gatttattta 780
tgtgggttat tataataata gttgtggcca ggcgttggtg gctcatgcct gtaatcccag 840
cactttggga aaccaagtgg gtggatcacc taaggtcagg agtttgagac cagtctgacc 900
aatacgggtga caccctgtct ctactaaaaa tacaaaattg gttgggtgtg gcggtgcgtg 960
cctgtagtcc tagctactcg gaaggttgag gcacaagaat catttgaacc caggagacag 1020
aggttgcagt gagccgagat cagccattg cgctcccgcc tgggtgacga gcaaatctcc 1080
atctcaataa taataatagt tgttgtattc gatccctctg ctgtcttggc ccctgtggac 1140
tgcagctttg cagcatcagt tagaagattg ttagaatcac catcatttct ctccaggcaa 1200
tttgtgtgcc tcctaatagcc tgacaagctc tgattgagat agcaactgaa aaccaagaaa 1260
taggaaagac caagatacct caaaagccta cccaccacca acatgttatg ttccacatgt 1320
aaaaccaccc acacgtgtat gttccattct aagaaagaca accatctagt ttctgtgcca 1380
tcctcctcac aaatggaggt agaaaaggtt ctctctaaaat caggcacatc agtaccagca 1440
aaccgtgata gctgacagcc tcaacaccta tcgagaggag ggaactgcct gggacctcca 1500
aaagtaaaat agtctggggc agagtttcta atcctttatg tgtatcacag agtttttacg 1560
tgagcacctg gattattcgt gtggttttga tgctccctga aaaattgagt gagaattaga 1620
gtcttgagct acttagtgta ttggcagatg tatttgtgaa catagcacag caaacatat 1680
gactttggcc tagccactta atgtattggc aaatgtatct cagtgaacat aggacagcaa 1740
atcatatgac tttggtttag agtcatctca aattgtgttt tactctatct tctctaaaag 1800
agtagggaag tatatgggtg actcctttgg agaagaaggc agcacattat ggccaagggg 1860
ccactcgggt gtgcctgtgt cgtctctggc tgctctcatg ccgtgttggc agagctgagc 1920
agctgtgaca gaagccacat gaccttcaaa gctgaaagta tgtactctat ggcccctcac 1980
agaaaagttt gccaagccaa tctgtaatat tttgaatttg gaaatgttgg tgcctaaaga 2040
agaaacgtct agggatatgg aatcccagga ttctaaataa ttcagagttt accctatgga 2100
gttttttttg tttggagttt tctgtttttg tttagaaaca ggatctctct gtcagccagg 2160
ctggagtiga gtgacatgat catagctcgc tgcagtctca aactcctggg ctcaagtgat 2220
cttcctgcct cagcctctgg agtagctgga actacagggg tgccccacta atttttaaaa 2280

tttttttgta gagatgacgt cttgctatgt ttcccaagct agactttgaa ctgatgctcc 2340
tgcctcagcc tcccaaagtg ttgggattac aggcgtcagc cactgtaccc aaccttggtt 2400
ttatcctgtg gcttcataaa tagtggtttc tggcttattg tggcttgagg aacggggtgg 2460
agatgtgcgt acttaggagg gtaagtggaa agtatggtag tataaagcag tgcaccagac 2520
tatacaacta tctgtaaaac agattccagg ccaaccatac tgttctgcat gaaccaattt 2580
aaggatttga atcagttatc tataactcaa cataaattgt cactgtttct cagatgtttt 2640
taattataatc cactgtaaga aatatgtttg atattatatt ccggtaccta caagttcata 2700
catgactgga acaaaaattt caaaaaaaaa ttatgtgtaa tacagtctga taccttctat 2760
tctgtttcat ttaagagttc tgggctgggt gtgggtggctc atgcctataa tcctaact 2820
ttgggaggct gaggcgggtg gatcacttga ggccaggagt tcgagacctg cctggccaac 2880
atggtgaaac cccgtctcta ctaaaaacac aaaaaatagc caggtatggg ggcacttgcc 2940
tgtaatccca gcaacttggg aggctgagac acgagaatct cttgaacctg ggaggagag 3000
gttgcaagtga gctgcactgc actccagcct gggtgacaga gcaagactgc atctcaaaaa 3060
aaaagaaaaga attctagttg tgacacattg aatttatatt acaaccacc agtggattaa 3120
ttgcattcag tttgagaagc atggtattga atgttacatg taaacaaaac aatctatgca 3180
ggatcacttt gtttcatttt tcttttttct cccaacacct gggagtacct gggaatatct 3240
tccttttctg tttgtacaaa tattagaaag tttccccctg ggtcttggtt gtctaattct 3300
tttcttttta atttagtctt aactgttttc ctgatttatt tttattttgc tcttcctat 3360
gctgaagatt ttagaaaatg taattagagt gtaataagaa gtcttattgt taaaaaaaa 3420
tacgctgctt tagtacttat taatataata atttggtagg gaggaagata atcagacttg 3480
aaatgtacag cattaagata ttctgaaaac atttttaaaa ctattccttt cgctaacccc 3540
caaaagaatg aatgaaatg ggtctccttt tttctcctac atttcactaa cactgatcag 3600
tttcttaaac tgtttaatat catttttagt gtccttagtg agaagtagcg tcttctgtat 3660
aatgtaattt aaaaatattt gccaacatta aatgtgtgat tatttc 3706

<210> 1480

<211> 3376

<212> DNA

<213> Homo sapiens

<400> 1480

tgatagggca	gagaggagcc	catgctccag	ctgcggggag	tgctgccccg	aggagctggc	60
cagtgaagac	aggtgcctgc	cagtgaagac	aggtgcccac	aagctggaca	cagggtcggc	120
cctgagacag	gacagcagct	gcggaatgtt	cccgttggtt	ttctggagcg	ccagcgtcct	180
gcttgggtct	ggccaggggc	ctctagccag	gctgttgagg	cgccccctct	tgttgaagag	240
gagaaacagt	ggccccctgg	gagttgctgg	gaggtgcctg	gcacagggcg	gcagggacag	300
catcatctat	ggggaaagca	agcccagcct	cagggtgtgc	ccgtccaaag	acccttgtga	360
gtccactgag	gtcaaatcaa	tggagtcttc	agaaaggcct	tccggagcag	tactacagcc	420
tcacctgggt	cctgagcccc	atccttggtc	tcattctcac	acctctcatt	gggtctgcga	480
gtgaccggtg	cacctgagc	tggggccgcc	ggcgccctt	catctcgcc	ctctgcgttg	540
gcgtcctctt	tggcgttgca	cttttcttta	acggctctgc	catcgtctg	gccctcggcg	600
atgtcccaa	ccggcagccc	attggcatcg	tgctcacggt	gctgggagtg	gtggtcctgg	660
acttcagcgc	cgatgccacc	gaggggcccc	tccgtgccta	tctgctggac	gtggtggaca	720
gcgaggagca	ggacatggcc	ctcaacatcc	acgccttctc	tgccggcctc	ggcggagcca	780
tcggctacgt	gctgggtggg	ctggactgga	cccagacctt	cctgggcagc	tgggtccgga	840
cccagaacca	ggtgctcttc	ttctttgccg	ccatcatctt	cacggtgtcc	gtggccctgc	900
acctgttcag	catcgacgag	gagcagtaca	gcccgcagca	ggagcgcagc	gctgaggagc	960
ccggcgcctt	ggatgggggc	gagccgcacg	gcgtccctgc	cttcccagac	gaggtacagt	1020
cggagcacga	gctggccctg	gactaccggg	acgtggacat	catgcgagc	aaaagcgact	1080
cggcattgca	cgtgccggac	accgcgtgg	acctggagcc	cgagctgctg	ttcctgcacg	1140
acatcgagcc	ctccatcttc	cacgacgcct	cctacccccg	cacccccgc	agcaccagcc	1200
aggagctcgc	caagaccaag	ctgccccgcc	tggccacctt	cctcaaggaa	gccgccaagg	1260
aggacgagac	cttgctggat	aatcacttga	atgaagctaa	agtcccaaac	ggaagtggct	1320
ccccacaaa	agacgcctc	ggcggctaca	ccagggtgga	cacgaagccc	tcggccacgt	1380
cgagctccat	gcggcgggcg	cggcacgcgt	tccgcaggca	ggcctccagc	accttctcct	1440
actacggcaa	gcttgggtcc	cactgctacc	gctaccggcg	cgccaacgcc	gtggtgctga	1500
tcaagccgtc	gcgcagcatg	agcgacctgt	acgacatgca	gaagcggcag	cggcagcacc	1560

ggcaccggaa ccagagcggg gccaccacct ccagcgggga caccgagagt gaggaggggg 1620
agggcgagac cacggtgcgc ctgctgtggc tctccatgct gaagatgcc aggagctga 1680
tgcggtgtg cctctgccac ctctcacct ggttctctgt catcgccgag gccgtgttct 1740
acaccgactt catgggccag gtcattctcg aaggcgaccc caaggccccc tcgaactcga 1800
ccgcctggca agcctacaac gccgggggtca agatgggctg ctggggcctg gtcatttatg 1860
ccgccactgg tgctatttgt tcagccctgt tacagaagta cttggacaac tacgacctga 1920
gcgtcagggt gatctacgtg ctggggacgc tgggcttctc tgtcggcaca gccgtgatgg 1980
ccatgtttcc caacgtctac gtcgccatgg tcaccatcag caccatgggc atcgtctcca 2040
tgagcatctc ctactgcccg tacgccctgc tgggccagta ccatgacatc aagcagtaca 2100
tccaccacag ccccggaac tccaagcgag ggtttggcat agattgtgcc atcctgtcct 2160
gccaagtgtg catctcgag atcctggtgg cctctgccct tgggggcgtg gtcgacgccg 2220
tggggactgt ccgctcatc cccatggtgg cctctgtggg ctctttcctg ggcttctga 2280
cggccacatt cctggtgatc tatcccaacg tgtcagagga ggccaaggag gagcagaaag 2340
gcctgtcttc cccgttggcc ggcgaaggca gggccgggtg gaacagcgaa aagcccaccg 2400
tgctgaagct cacgcggaag gagggcctgc agggaccggt ggagacagaa cgcctgcagg 2460
tattgacgtc tgtcagatct cgtcacattg gctggtgccg cagctgttgg agagtatttt 2520
tctttatgat tattttagaa aaaaaatttt cttttccaca atgtggttct cttagaagaa 2580
tgacgtatct tcttttctc agcgagttgg acacattgtg cccagggcag ccctgtcctt 2640
gggcagcgac cgcacaccaa agctggaagg aggctggtcc ggggggcctg ggcagaagac 2700
agtgatttgc aggggtggct cccagacacc ctgcccaggg atgggctggg caccacctgg 2760
gggcggagcg tgagctccag acgagctcct gcgtgcgct gtgagtgtgt ctgcgccag 2820
ccatgtgacc ccgctcgtcc cgtctgaagg actctcctag gaggccaggt tgcccctcca 2880
gaccgtccc aacgtcagg ggaaggaaac gttgactttc actgcacttt gattcgtctc 2940
taaaccattt gctggggatt cctgagagca gagctcccag cgggccctgc ctccaagtc 3000
ccgccgcaag gctacctcg gtgtgtggat gtgcgagggc ctccccgct tgcgaagggg 3060
acatgcgtgc tggaacctgt cggaactcca tgccttctc gcctgctcac ctgctcgacg 3120
ctggaatcgg gacaggtgca aaggacgca gacgtctggg acagctaagg cccgtgtcac 3180
cggagggtc cgcacagtcg ttctggtttc aacgaataag caaaactcgg gcaagtactg 3240
cagctatttg gtaatgtttt ccaaaccaca gtctctttag aactaagcct atttgaaacg 3300

gtcggtag gcttactgag atcaggagac agggaggccc cgcacatcac acagataaag 3360
tcagacaatt gtaatt 3376

<210> 1481

<211> 3925

<212> DNA

<213> Homo sapiens

<400> 1481

accagtgcct atggggtcgg gaaggtcccc ccgcgagggtg gacttccggt tctggaggta 60
gttttgcagc agcatcttgc gcagctgggt gccctggggg aggatgggag tgaggcccca 120
ttgtgggtac agcccaccac tgaccactgg cctgacgggc ttgaccctga gcccttgggt 180
actcctgact ggcccacca gcaattgccc caccaggga ctcacccggt cccgtactt 240
ggcttcttg agcagcatct gctgcagggt ccgcagcacc ttgatgcaca gcttctctc 300
cgactccatg aggtccttgg tgtgttgat cagcctgagc cggccaagga ggcagctcag 360
ggcagcccca cactgcctcc ctccagctac ttccccaccc catcccaggc aggaacaccc 420
ccaggccctc tgaccagtg agcctgtcta gtccccaccg ggcccttctc tgtccctgc 480
cgctgcaccc ctgtgcccc catgccccag tgtctcgctc acttgacag gaagcccca 540
ctctcgagc gctggtaggc ctactgccc tccaggaaga gcagctcagg ccagtgcagg 600
acatccacca gcacggacag ctacagcctgt accaggggct tcagccgctc ctccagggt 660
gtgatgatgt cctgggggtg gcagggcaga gtcattgcca ggccaagaa atgaccggg 720
tgtgactgcc attctccga cccaaacgcc aaacagcccc acagattgcc ctgcctctgt 780
ctgaggggcc cacaccaca gagacacct gaacacagcg tgatgtctgt ctgctcagag 840
ccctggctgg gagctgcca gcctggcttc tctcccagct ctgtgtgacc ttgggcaaac 900
cccttagcct ctctgagcct cagtctcttg ccacgtgggg aaaataatcc accacacccc 960
ctctacaggc caacgagaca gcgcacagaa atgtgtgca tagacaggag ggcgtgcag 1020
gagtgagggg tgggtccgac cccctcatga gctccaaccc cactagcagg cctctgggtt 1080
ctccaggctt cctctggaag gaggttcccc agtcccttgc tgctgggtcg gcccttagca 1140

gccccggagt gtagagaagc caaccagccc cttcctggaa gtgtgggcag gacaggaaga 1200
aacactcccc gagaacttgc ccctccaaag taggggagct gctgactcaa ccaagcagcc 1260
cccaggcag atgccaggca gccccacacc cacctgcagc ttctcaatga tgttcttgta 1320
gtcccactgg ttggcgggtg gggtagcg ggggaaggcc cgcgtggtt cctttagct 1380
ggaggcgttc cgctgggcgg cagctgcaca gctggctcca ctgctgagca tcgagctgat 1440
gtgggcatcc aggtccatgg gcagcaagat ggccccggccc ttggctgggt gggaaggag 1500
ggagtgtggt agtgctggtg cgggggcagt tcagccagcc agaggccagg ctgaggctg 1560
ccacaccagg agacagagt aactagacca agggctctggg agacagagac cccccacc 1620
ccggcctatg cttgaggac tgagaggctt tcttccctt gttgggtaa aggagtttct 1680
gcctctttga ttcccccg ctctaccctg acttccctt cctctcttc acctgtctc 1740
tcttcttccc caactgtccc taacaatcca caggcctgct cctgcctgag ccatctgca 1800
aatacccata aaaaactagc tggagaatgt cggcgagcat cttctctgg ggaactgacc 1860
cagaggagaa aacagcttct ctcaattgcc aggatgaggc agacgccaag aagagcttac 1920
tgacaaccac ctgggagcag gagatgggcg agcttaggga taaagtgtt attaggagg 1980
caggcgtccc cactgtgagc ggcaggagga gtggtttggg gctggccagt gccccggcac 2040
actacccac catggcgagg gtccggatgc aggcctccac ggagccctt tgctgtgct 2100
gtagccacgg aactcgagg aggcgtgtg tagactgcag cagctgcacc acaatctct 2160
ggtgtgtctg caagaagtca cagagccgc tgctgcagcc caggcccca ccctgggcaa 2220
ccccaggctc aggaaccagg gccaatcag aatgggcatg ggtggagaga cggagccttc 2280
actagccacc atgtgcctct gtgccagttg gaaaaagcta ggcaagtcgg ccctggggtg 2340
gtgggagagg agaagctcac ctgcaggga gtgctgttct cagagaatgg ggagctgaag 2400
aaggcgttga tgggtgtccag cacaacgctc agcacgtact tctccaaggt ggggtcagcc 2460
acgcgttct cacgcttgct gcagacctga ggcaggagag agggatggct gggggctcct 2520
cacatggggc ccctccactc ccacacctc tggggggctt caccacacc cctcacagg 2580
acagaccga gccatgtcca gggatgaagt ctcaaagagc gtccagatgt ggttgctggt 2640
gtagatctcc ttcactcca cctccgtgtc cacgtagcag tggttcacga agttcacata 2700
ggccattttc acctgggcag tgggcgggag gtcaggggcg caagcagggc cgcctggcca 2760
ggctctccct gccacaatgc tctgtcccc tggcctccgg ttcctgcca cttccctggc 2820
tttgcttcac ccactcttc tgtcccggtg ctttaccac cccttcgcc catctccagc 2880

cgtcttgccc agtctcccga tccccacctc agtgatgcag tcctcatgcg tcaccacaga 2940
 caccacgtcc tccagcggca gcagggaggt gcacttgatc tcagtgtaga cgTTTTtgcc 3000
 ctccggcacag gcggccagca ggtccaccag ggaaatgtgg tacatgaggg ggctgtggtc 3060
 ctccacgccg tcgcgggcgg ctttcatcat gtccagcagg tgggccagcg atgccttata 3120
 attgtagaac acgaccacat cgtcacctgc attggtcagc tgcgggcggg agggggcacg 3180
 tgtcacactc tctcggcca gcaagccctg ggctctcctc tcctttgctt accagggaga 3240
 aactgggact ctgaccacag cccttacctg aaatcaggaa aaccctcccc tggctgggat 3300
 ttgggggttc cccagctgat gtctcaggcc ctctgccagc agagatattg accccatgac 3360
 ccagaaagtc cccgcttctc cccactggaa agaagtccca taggggtcat ctgagaggca 3420
 gcttctcca ggaagcctcg ctaatcccgc cttgtcacc ccctccctcc cctgtgctcc 3480
 cgcagcagtt acttaaacc tctcactga gcacacacct ctcgtgccag cgactgcatt 3540
 attcgcagta atataataat agaaattaat aaaactaaca ctgtacagca gttccagcac 3600
 atcatgtctt gtttatgatg tctaatctc ctttcagtgt ttgtttcttt ctccccctgc 3660
 cgcctacact gtcagatgct caggggcagg gaccacgtct gttccagatt tagactcagc 3720
 cctgtatcct tcgtgccttc actcaacagg tgtctgttgg gaacctacta tgcgccacac 3780
 actggggccc tggcgatgca cacaaaggat ggggtccctg cccgtgcccc ccaggagctg 3840
 acactcagct gatgtcccc atgcatgtac agtccgtggc acgtagcagg tgcttctga 3900
 ttttaaataa acgacgacaa gtgac 3925

<210> 1482

<211> 4992

<212> DNA

<213> Homo sapiens

<400> 1482

aggagacttc cgagcccgtc tctccctcca tctccagct gctgcccctg tagcccagga 60
 gcccatactg aggccccagg gcctccgctc ccatcttctt ctcttcagc tgctgcctgc 120
 ccagcaggcc aggtcttcgt gaactgcagc gacctgcaca cggacctgga gctgagcagg 180

gagaggacgt gtgagcagca actgctgaac ctgagcgtgt cagcccgtgg cccctgcctc 240
tcgggctgcg cctgtcccca ggggtctgctc agacacgggg atgcatgttt cctgccagag 300
gagtgcacct gcacttgga ggggaaggag tatttccctg gggaccaggt gatgtctcct 360
tgccatacct gagcacatca gatgtcagct tctctgtgat ttagagaaat gtgaactgct 420
acagctctgg catgatctgc aggaaattta tttccatcaa cgttggaac tcactcattg 480
tctttgatga tgactccgga aatcctagtc cagagagctt cctggatgac aagcaggagg 540
tccacacatg gcgagtggga tttttcacac tgggtgcatth cccacaggag cacatcacc 600
tcttgtggga ccagagaacc acagtgcacg tccaggctgg gcctcagtgg cagggccagc 660
tggcgggcct ctgtgggaac tttgacttaa aaaccatcaa tgagatgagg accccggaga 720
acctagagct aactaacccc caggagtttg gcagcagttg ggctgcagtt gagtgccag 780
acaccctcga tctcgggat atgtgtgtcc tgaatcctct ccgagaacca tttgccaaga 840
aggagtgcag catcctgctc agtgaggtgt ttgagatctg ccaccctgtg gttgatgtca 900
cttggtttta ctcaaactgc ctgacagaca catgtggctg cagccagggt ggtgactgtg 960
agtgttctg tgccagcgtc tccgcttatg cccaccagtg ttgccagcat ggggtggctg 1020
ttgactggcg aacccccgc ctctgcctgc taggtaaggg cccctatcag ctatccagct 1080
tggcagccgg tgggtgctctg gtgggcatga aggcgggtgg cgatgacata gtcctagtga 1140
ggacagagga tgtggcgcca gcagacattg tgagcttctt gctgacagct gctctgtaca 1200
aggccaaggc ccatgacca gatgtggtgt ccctggaggc agcagacaga cccaattct 1260
tccttcacgt cacagccaac ggggtctctg agctggctaa gtggcagggc cgtgacacct 1320
tccaacagca tgcctcctt ttgctgcacc gggggacacg gcaggcaggc ctggtggccc 1380
tggagtccct ggccaagccc agctccttcc tctatgtgtc gggcccgggtg ctggccctgc 1440
ggctgtacga acacacagag gtgttccgcc ggggcacact cttccgcctt ctggatgcca 1500
agccctcggg ggctgcctac cccatctgcg agtggcgcta cgatgcctgt gccagccct 1560
gcttccaaac ctgccgggac ccacgggcag ccagctgccg ggacgtacc agggtagaag 1620
gctgtgtccc tgtgtgcccc acccccagg tcttgatga agtcacacag agatgtgtct 1680
acttgaggga ctgtgtggag ccagcagttt gggttccac agaggccctt ggcaatgaga 1740
ccctccctcc cagtcaaggg ttgcccactc ccagtatga ggagccacag ctgtcacagg 1800
aaagccccag gacccccacc cacaggccag cctcaccac agctgcccc ctcaccacag 1860
ccctgaacct accagtgaca gccactgagg agccagtgggt gtctccaggc cccaccaga 1920

ccaccctgca gcagccactg gagctcactg catctcaact ccccgccggc cccacggagt 1980
ccccagccag caagggagtg actgccagcc tcctggccat ccccataca ccagagtcct 2040
catccctccc tgttgactg cagacacca cacctggcat ggtgtcaggt gccatggaga 2100
caacaagggt gactgtgatc ttgtcaggaa gccctaacat cacagtctcc tcccggtcgc 2160
cccctgcccc tcgcttcccg ctcatgacca aggtgtgac agtccgaggc catggctcct 2220
tgctgttag gacgacacc ccacagccct ccttgacagc aagtcctcc tccagacctg 2280
tggttcccc tggagccatc tccaggtccc ccacctctc gggatccac aaggctgtgc 2340
tgacacctgc agtaactaag gtcataagca ggacaggggt ccccgagccc acccaggccc 2400
agagtgcctc aagtcaccag accctctaa ctgtggctgg aacagcagca gaacaggttc 2460
ctgtcagtcc ccttgcaacc aggagcttgg agatagtgt atccacagag aaggcggaag 2520
ccgggcacag ccagcccatg ggctcgcctg cctccccaca gccacacca ctcccctctg 2580
caccaccccg cccagcccag cataccacca tggccaccag gtctccagct ctgccccag 2640
agaccccagc tgccgccagc ctgtcaacag ccactgatgg gctggcagcc acacccttca 2700
tgtcccttga gtcaactcgt ccctcccagc tcctctctgg cctgcctccc gacaccagcc 2760
tgccccctggc caaggtgggc acatctgccc cagtggccac acccggtccc aaagcctctg 2820
tcatcaccac tccactccag ccacaggcca cgactctgcc tgctcagaca cttagcccag 2880
tactgccttt cactccagca gcaatgacc aggcgcacc acccactcac atagacccc 2940
cagcagcagg cacagtcca ggcctgtgc tgggagccac attgccaacc tctggagtcc 3000
tgctgtggc tgagggcacg gcctccatgg tatctgttgt cccacgaaag agcaccacag 3060
ggaaggtggc catcctatcc aagcaagtgt ctctgcccac ttccatgtat ggttctgcag 3120
agggtgggcc cacagagctc acgcctgcta cgagccacc tctcacgccc ttggtggctg 3180
agcccgaggg agcccaggca ggcacagctc tgccagtgcc cacatcctat gccctgagcc 3240
gtgtctcagc caggacggcc cccaagaca gcatgttgt tctgttcct cagtggctg 3300
aggcccatgg aacctcggca gggcctcacc tggcagcaga gccggtggac gaggccacca 3360
cagaaccatc tgggcgtca gcccagccc tgagcatcgt agagggtttg gcggaggctt 3420
tggcaactac cactgaggcc aatacatcca ccacctgtgt tccaatcgcc gagcaggact 3480
gcgtccgcca catctgcctg gagggccagc tgattcgcgt gaatcagtcc cagcactgtc 3540
cccagggtgc tgctccccct cgctgtggga tcctgggcct cgccgtgcgg gtgggtgggg 3600
accgctgtg cccactctgg gagtgtgcct gccggtgctc aatcttcct gacctgagct 3660

tcgcgacctt cgatgggagc cacgtagctc tgttcaagga ggccatctac atcctcagcc 3720
agagcccaga tgaaatgctc accgtccatg tactggactg caaaagtgcc aacctggggc 3780
acctgaactg gccccggtc tgtctgggtga tgttgaacat gactcacttg gcccatcagg 3840
tcactattga tcgcttcaac cgaaaggtga ctgtggactt gcagcctgtg tggccaccgg 3900
tgagcaggta tggattcaga attgaggaca caggccacat gtacatgatc ctgactccct 3960
cagacatcca gatccagtgg ctccacagct caggactcat gatcgtggag gccagcaaaa 4020
ccagcaaggc ccagggccat ggcctgtgcg gtatctgtga tggagatgca gccaatgacc 4080
ttacctgaa ggatggctca gtgggtgggtg gggctgagga ccctgctccc tttctggaca 4140
gctggcaggt gccagctcc ctgacctcag tgggccagac ccgcttccgc ccagacagct 4200
gcgccacaac tgactgctcg ccctgccttc gcatggtgtc caaccgcacc ttcagtgcct 4260
gccaccgctt tgtgcctccg gagtcattct gtgagctgtg gatccgggac accaagtacg 4320
tgcagcagcc ctgctgggcc ctgactgtgt acgtggccat gtgccacaaa tttcatgtgt 4380
gcatcgagtg gcggcgctct gactactgcc ccttctgtg ctccagcgac tccacatacc 4440
aggcatgtgt gacagcctgt gagccacca agacatgcca ggatgggata ctagggcctc 4500
tggaccaga gactgccag gtgctgggcg agggctgcgt ctgctccgag ggcaccatct 4560
tacaccggcg ccactctgca ctctgcatcc cggaggccaa gtgcgcctgt ggtgactgtc 4620
cagactccat ccccgatgt caagaagggg aggcgctcac tgtgcacagg aataccacgg 4680
aactctgtg ccctctgtac cagtgtgtgt gtgagaactt ccgctgtccc caagtgcagt 4740
gtggcctggg cactgcctg gtggaggtgt ggagccccga ccgctgtgc ccctacaaat 4800
cctgtggata aaagaaggaa aaagcaagtt tccattcca aagagggttt ccgtcttaaa 4860
aagtccttac tgcggccggg cacggtggct cacacctgta atcccagcac tttgagaggc 4920
caaggcgggt ggatcatgag gtcaggagtt caagaccagc ctggccaaga cggtgaaacc 4980
ctgtgtctac tg 4992

<210> 1483

<211> 3128

<212> DNA

<213> Homo sapiens

<400> 1483

gtgtgctcgc gcctctcgcc cggcctctaa gagtcgttgg ggccagacgc tgcttcccttg 60
cctcccgcgg aggccgccgc cgccgccgcc gccgctgccg ccgccgccgc tgccgccgcc 120
cgggcggcac tgacgccgga gtcattgcagg atgaggtcgg gggattcgga acggggcgctc 180
tccaggttgc tggcgctcgt gtcactgtcg ctgccctttt tgcccccgcc gcccccgttg 240
tgcgtcttaa tgtgtttgct cagggtggtcg ctgcgcatga agcgcttggt gcacaccgga 300
caggcgaagc gcttctcgcc cgtgtgagtc cgcagatgcc gctgcagctc gtccgagcgc 360
gtgaagcgct tgccgcagaa gagccagttg cacacgaagg gccgctcgcc cgtgtgccag 420
cgcagggtgcg ccttcagggtg cgacgtcttc ccgtacacct tgccgcagcc cggaatgtgg 480
cagctgtgca ggcccttgcg ccgcaggctc gccccggccg ggcccagccg ctccgcctcc 540
tggcagttgg ggcagtcgca ggtggcgccg cccgagtagc ggcgggcaga gcgtgccgag 600
ctccccccgg cggcggcagc cgccggcgccc gatatcatgg cgctggcggc ggcggctgcc 660
acggcggcgc tggagtccga ataggagggc aacaccggct tgaagccgct ctgggcccagc 720
agggtgctggc tgggtggagag cagggtgggag gcggcgccgg ccgaggagcc gaggcccgtg 780
gagctgaagg cggagtgcgt gagcgagctg aagtcggggg tgtagggtgcc cagctgcgag 840
tgcagcgagg cctggggggc gcccgagtgc agcgagctct ggagcccccc agcgggggttc 900
tgcacttcca gccacgagcc cgggctgctg tgcacgtccc accacgacga cgccgcgccg 960
ttggtcacct cgccggccgc cagcgctcgaa tgggaagccg acttgtagca ggactcgtag 1020
gggtgcgcca tgcccacgcg cgggtacagc ccgtcggtg ccgtcgtgtg caccttgga 1080
atgaaggccg actggccacc cgcctcctgc ggggacaccc cggccgctgc cgccgcggca 1140
gccgccgagt tggagaagag gccgccgtag tcgctgctga aggcggacga cgtgggagac 1200
gtggaggcca ggcagaaggc gctgttggcg gcgcccagc cgcccgccag gccgcccag 1260
ccacggcccc cgggtggccac cgcgaagccc gagaggctgg agccgaggtt gcagctggac 1320
gaggagcgct tccaggggtg aaagccgcct ttggcgaagg cgctcgactc tggcagcgctc 1380
gtcagcgggc tcgtgttgcc gatcttggtg caggtcgccg ccagcatggc caacggggctc 1440
gttccgaagc gcggctcttc ctagagtggg tgggatgggg gagggagcaa gaaggaggag 1500
ggcaagagga agtgggggaa gaaacaaagt gcacccgtga gcagcctcgt cccctgcggc 1560
tgctccccggg gggtcctggc tccccgcctc gcgcctcctc cccacgcgcc cgccgaggag 1620

tcgccgcacc gggcgcgag caggggcgat caccggcg aaggtccagg cgccgaaag 1680
 ttgcacttcg ctgaggctat aaatcaaaga tgcctccgtg ttccccgtg caaccctgcc 1740
 tacaaccgga cttgggttgt cgccgtaaac cggtcatct cccagaagac cccaagtcgc 1800
 ccttcggggt gaagcgcaa ggtaaacaca gagaccagag acaacaaaca ccgggtgagg 1860
 gcggaggcgg ccgaaacagc agccaggac gggcgaaact tgcagctctc ccagggtggc 1920
 tacgacttga cttttctttt ttaatagaaa acgtttggtt ttaaagtta catacacaca 1980
 aaaacagcga ttatgaaaac aataatccga ggataagcgg ccagagacag atttcaaagt 2040
 catgggcgaa ttggggagcc gcggaaatgt aaatgtttat tagcgtgact agatggactg 2100
 caaaacgatt aagactgttt tctggaaaca ccattgtcgc ataattgcaa caaaatcccc 2160
 aaagcaaggc gggggatggg gtataaatca cgaggggaag aaaagaaacc tctagctttt 2220
 ttttgaaacc aaatgaaaaa ggacttgatt aagaaggcct tttcttgcaa aggcattttt 2280
 ctgggttcca aaaacttggg gaaaaatcag tcccagaaat gtggaaagt ctaatagaag 2340
 ctgaagctgc agtctagcag caacagtttc tccggagccg cagaccccag aagccataac 2400
 gaaaaattac tccggttaa acaagcaa at gcgttgccgc gcttgcgact taccgaggt 2460
 atagacgtgg ccatagcagg tctctggctg cgcagcgagg ctgggagcgg ggctgagcct 2520
 ggcggtgct cggaact gcttgggtcc cgcgcggtc ccgcgtccc gcgctcgtgc 2580
 cgagcggact ccaggctccc gccggctaaa ctgagcctaa gtgagaggag caccgcttt 2640
 gaagtgccgc tggctgcgcc tctcgccaa tgagggcgca ggcagagcag accggagctg 2700
 cccgcagcc aatcagacgc tccgaggggc ccgagcccgg gctcccggcg cgtgccagtc 2760
 aagtcagcta gctagggccg cgggggtggg ggggagtagt gggggatact tgcggtgggg 2820
 gacgaggcg ggctggggac tgaagaaatt acagtgaat taaaaattta cactcacgca 2880
 ccaagccagg tttaagtacc aatgaaaccg agccacaagc accccccac acacaaacca 2940
 ccccgagatg ttgcaagtta gggctgacag tcctactcga ctccccactt gtaggaaagg 3000
 aggcaggagg ggaggagaca ccagacaca gcccgcacca gcagggccca agtggagacg 3060
 gaaatgtgag ccctcacttt gtgtgtccag gcttttgctt acagaacaca acttcagctt 3120
 gtatctat 3128

<210> 1484

<211> 4028

<212> DNA

<213> Homo sapiens

<400> 1484

ctcgccgtgg	cctcctcggg	ccaggctccc	gccttggggc	ggccccgca	ggcccagctc	60
ctgcctcacg	gcgctccgga	ggccaagctc	atgcgtcagg	gcggcctctc	ccggcctggc	120
gtttgtcctt	ttgcatgggc	tccaaatcct	gcacttcttc	cagtcgttct	ctccaggccc	180
agctcttctt	cccagcagcc	tctgcaggac	cagactgtcg	tcaagtaggc	ctgtccaggg	240
acagctcctg	cctcccggca	gactctgcag	gcccagtcg	tcctcaagtc	agcctcccca	300
ggcccagctc	cggcctctcg	gcggcctctc	caggtgcaaa	agttcctcga	gtccgtctcc	360
aggtccagct	cctcctgtct	cccagtggcc	tctttcagcc	cagcccagct	catgcctccc	420
ggcggccttc	ccaggccccg	cttctgactt	tccgcggcct	ctgcaggccc	cgaatttgac	480
ctccagtcgg	cctctgcagg	cctggcctcc	tgcctcccga	aagcttgac	aggctcagcc	540
tctgcctcac	agtggactct	ccacgcccag	ctcgctctcg	cctgcagcct	cccaggtcca	600
aagctccggc	ctctccgccc	cttcggcagg	cccagctccc	gcctgccagt	ggcctcctca	660
ggcccatggg	gctcattcct	cacaacggcc	tttcccggcc	cagtttttcc	cttccggcgg	720
cctctctggg	cccagaagct	cctcaagtcg	gcctctccag	accacttgc	agcctcccgg	780
cgctcctctc	gggcccagct	cttctctccc	gctgcgtctg	caggcccggc	tcctgcctcc	840
caacaacctc	tttggactca	gtgcctgccc	agctcgtggg	ggccttggtc	ggcccacagc	900
ttcctcaagc	caagctcccc	aggcccagct	caggcctcac	ggtggcctct	ccaggctcag	960
ctcctgccct	ccgacggcgt	ctccaggccc	caaacggcct	ccggtcgggtg	ggcttctcca	1020
ggcccagctt	gggcctcccc	gcggcctctg	caggcccaag	tggtcctgaa	ggcagcctct	1080
ccaggcccag	ctccggcctc	ccagcaagca	agctcttttg	gctcagctcc	tgcccagctg	1140
ccgccggctt	ttgtagacct	tgaactttct	ccagcgaagc	tcctcagctc	cacctcctgc	1200
ctcccgggtg	cctgtacagg	cccaggctctg	gctggagaac	agcctctgca	ggccccgctc	1260
ttgcctccca	ggggcgctctc	caggcccagc	tctgcctca	cggcggcctc	ccgggaccaa	1320
gtccctgcct	gcctcccagc	agcctgtgtg	cggcccagct	cctccgtcac	ggtggcctgt	1380
tgaggcccaa	ctcatgcctc	tggcaccctt	tccagaggcg	tgagcccctg	cctcacactg	1440

gcctctctca cgctgaggga ggtcagcgtg agccccctgcc tcacactggc ctctctcacg 1500
ctgagggagg tcagcgtgag gccctgcctc acactggcat ctgtcacgct gcgggaggctc 1560
agcgtgggcc cctgcctcac actggcctct ctcacgctga gggaggctcag cgtgaggccc 1620
tgctcacac tggcctctct cacgctgagg gaggtcagcg tgaggccctg cctcacactg 1680
gcctctctca cgctgaggga ggtcagcgtg aggccctgcc tcacactggc ctctctcacg 1740
ctgagagaag tcctccctca cgctggcctg ttggggccca gtcatgcct ctgttggtt 1800
ctccaggccc agccccctgcc tgttggcggc ctctagaggc ccagcctctt cctcaacagt 1860
gggccctcca cggccacctc ttgcctcgcc gtggcctcct cgggccaggc tcccgccttg 1920
gggcggcccc cgcaggccca gctcctgcct cacggccctc cggaggccaa gctcatgcgt 1980
cagggcggcc tctcccggcc tggcgtttgc tcctttgcat gggctccagg tcctgtactt 2040
cctccagtgc ttctctccag gccagctct tcctccagc agcctctgca ggaccagact 2100
gtcgtcaagt aggcctgtcc agggacagct cctgcctccc ggcagcctct gtaggcccag 2160
actgtcatca agtaggcctg tccaaggaca gctcctgcct cccggtgacc tctgtaggcc 2220
caagtcgtcc tcaagtcggc ctccccaggc ccagctccgg cctctcggcg gcctctccaa 2280
gtgcaaaagt tcctcgagtc agtctctcca ggcccaggtc ctctgtctc ccagtggcct 2340
ctttcggccc agcccagttc atgcctcctg gtggccttcc caggcccccac ttttgacttt 2400
ccgcagcctc tgcagattcc gaacttgacc tccagtcggc ctctccaggc ccggccccct 2460
gcctcccga ggcctgcaca gggccagtct ctgcctcaca gtgggctctc cccccccagc 2520
tagctctcgc ctactgcag cctcccagat ccaaactctc tgcctcttgg ccgcttcggc 2580
aggcccagct cccacctgcc agtggcctct tcaggcccat ggggctcatt cctcacaacg 2640
gcttttccag gccattttt tcccgctcga ctgcctctca ggaccagaa cctctgggcc 2700
cacttgagga gatgcagcca ggaggaacag ctgggcttgc agaggctgcc atgagggagg 2760
cagaggctgg gcctcctgaa gtcggcctct ccagaccac ttgcagctc ccggcatact 2820
ctccgggctc agctcttct cccggctgcg tctccaggcc cgactccggc ctcccaacaa 2880
cctctttgga ctacgtccc gcccaactcc cgggtggcct ggttggccca caacttctg 2940
aagccaagct ccccaggccc agctcaggcc tcacggtggc ctctctaggc tcagctcctg 3000
ccctccgacg gtgtctccag gccccgaacg gcctccagtc ggtggattcc tctatgccc 3060
gcttgggcct cccggcggcc tctgctggcc caaatcgtcc tgaagtcgcc ctctccaggc 3120
ccagctccgg cctcccggcg gcctctccag gcgcaacgca tcgtcaacga gggccccctc 3180

ggggccagct cctgcctctc gtcctcctct agagacccag cctctgcctc ccgcatggcg 3240
 gcctctgcag gccagactg cctttgagtc aggctctcca gggccagctc cagcctcccg 3300
 gcagactctg caggcccaag tcgtcctcaa gtcggcctgg aagtgggcct ggaagagctg 3360
 cacgttggcc tccccgggcc cagctccgtc ctctcggcgg cctctccagg tgcaaaactt 3420
 cctcgagtca gcctctccag gtccagctcc tcctgcctcc cagtggcctc tttcagtcca 3480
 gccagctcg tggctgtagg cagccttccc aggccctgct tttgactttt ggcggcctct 3540
 tcaggcccag aacttgatct ccagtcagct tttgcaggcc tggcatcctg cctcccgaag 3600
 gcctctttca gccagccca gctcgtggct gtaggcagcc ttcccaggcc ctgcttttga 3660
 cttttggtgg cctcttcagg ccagaaactt gatctccagt cagcttttgc aggcccgga 3720
 tcctgcctcc cgaaggcctg cacgggcccc gcctcggaat cacagcagac tctccacgcc 3780
 cagctagctc tcacctact gtggcctccc cagtccaaag ctctgcctt tcggccgctt 3840
 cagcaggccc agtccccgcc tgccagtggc ctcttttaggc ccagctcatt cctcacaatg 3900
 gcctttccag gccccathtt tcccttcggg cagcctcttg gcctctaatt ttttttatct 3960
 tttgtgtata aatccccaaa tatggaatht tggaatatht ccaccattat ataaatatht 4020
 tggtaggt 4028

<210> 1485

<211> 3260

<212> DNA

<213> Homo sapiens

<400> 1485

accactgaga gtacagaaaa cacctgtgag agaggctggc atccagggcg ggaaacctct 60
 tttgagggcg tgaaccagga tgtgaagcag catttgaatt cttgctgctc tcttctggag 120
 cagtgggata ttgggcagtt cacttaacct ctctgagctc cttcctcaag cttttttttc 180
 ctgactacag cgagcaacag ctgtttgaga tggtaggagca cattcttgct ggtgaaagga 240
 agcaaggtca acagagactc atagaggaaa cattcaacaa cttgaacagt aagcaagttg 300
 cagtttccgt ctgagtgac tgaggtgata cagcagatht tgctgtggac caagatccag 360

ttttcctcat aacactcaca gctttggacc cctgcacctg ctgctatgct aacttgagg 420
aaacagagct ccgcaagacc ctcagcaact gcttcccaag tacataagag gaaaacaaaa 480
caaaacaaac caccaacaca cacacatggt tacacagaca catacatgtg tgggataaga 540
ggcagagcta gagtccattt tccaggtcag acttgggact ccaagcctga ctttggagtg 600
attcaaatca ccttcacact attttgctgc ttgttcagtt cagtacacgt taagaatggc 660
ccccaaccaa cagggaactg gtttggttat ctcccttgc ctttcaaact cacccaagca 720
aagataaaag tattaaatga ctaatccaga tccccagcac cacatcaagc tcctcagggt 780
tcctcttcaa agcactgggc actttgaaag ataactgtaa aggtcacatt tgtaataata 840
gcaagaactt cttaaacaga catgtaagta actgcacata gacgtgacat gtcataactc 900
gagaaatctt ttaaagtaaa gtttacgcca aattaacttc caacagctcc gactctccag 960
accattcttg gtactcttaa tgacagactg tgcagcccaa agcctgcagc tgcagtgtca 1020
ggacaaatta gcctaaagt gaacaaaagt caatgtgaag aaatgtggta tccggcaagg 1080
tctgactttt gaaattctga gattgatgac attttaaagg ttaggtaca acagaatgtg 1140
ttttccatat ttgtaagcaa ttctaggttc ctgagcactg agagaaaagc aaagttaatt 1200
tctcaccgta ggagaaggcc ttattatatt tgtgcacata cacgactgtc ctgtgatcaa 1260
gaaaaggcat cttttaaag aatcgttttg aaatgtttat ctcttatttg aaatccaaga 1320
aagagtagac attcatttcc aaacaggacc ataaatcata taacgctggg agaaagggtca 1380
acaccaccag cacagcacag tttctcacg tatgcttaag gattttcaga atctccaaat 1440
aatagcatga tgtaaaactt gaataaaaaa gaacaccatc aagactccac tgaacaaaga 1500
acgtctgact ggaaatgctt acggcacctt tcacatgggt gggcaacttt cctctactgt 1560
tccacccctt ctgcctgtgc agctgccaga gtttaacttat ctttatcaga atcacaaagg 1620
aacactctcc tgcttattta caaggctaaa atgacatctg gtggcgctct tctctgagaa 1680
ctcagtcact gttcctggaa aatgatgcaa aagcacaac ttttgaggg caactgtagg 1740
agtattcttg tgcgtgtgtg ttaagtacta actgctgatg ttgctcaaat gttccgctag 1800
tccctgtagc ctcaaatgt ttattcatt gtctgtgat caattcaaaa agccatcttt 1860
tataagaatg gttttgaagt gtttatcttt tatttgaaca tccaagaaag agtagacatt 1920
gacttcaca ggggaccata cctcctataa tgcctgaagg tgcttaaaat atagtgaact 1980
gtgttaaagt taataggata catcattagt gtgttaaaaa atgtaaaatg gtgacatact 2040
atcagctcac ctgggtaagg aaaatatggc taaagtacct ctaaagggtat ctacttatta 2100

agtatactga ccaaacttta gacattttac ttcgaccaca gaaagtatta tttgaaaaaa 2160
aaatcttcat tacaaaatta catatttaaat taggaagtaa aacctaaatc tgtattttact 2220
agcaatgccca actttaaata ttctagttgc agctgacaac agaaattcta acatgcatat 2280
gttgttgcat aatagcctct ttttcctagt tgggtatgtt tgtagagaca gaaagggtccc 2340
ctgaccaatt gtgcaataga gcccgaagat acttaagcct ggaactactc tctcagactt 2400
aacaaaatgt tcatcttaat ttctatcaga ttgggacaaa acattcactc tttagataat 2460
agaggagaga ctaaagaaca tgtcataata gtcaaatttg tgccaatgtt aaatctatcc 2520
ctttaaaaaac atgtattatt gtgaggccgc agggattagt gcaacatttg aacagaatca 2580
gcagttagta cttaacacac atgcacaaga atactcctac agttgccctg caaccaagaa 2640
gctaataaaa gagccaggct tttcaaatga acacctcgat gatgacacca ttagttattc 2700
agcaaaaata aatgcttcat taacttgtct tcccactgtt aaaggatagg atgaatttac 2760
ctcaaggcag caactcagat attaacgttc ccttacattt tagagctcac tatgcagaaa 2820
taccagaaat aaggtgactt aaaactcaat ttgtctgtaa aatacactgg cctttggaat 2880
ccagaaaccc acttggtcct gactgccaat tacttgacct tccttttggtt acttgacctc 2940
tctggatctt gactaaactc atttgtgaga caagaggaga tgtccaaagt tttttcatct 3000
caaatatgtt acgatttaga ttcaacaatt atttttccaa ttcctaccac acaccccga 3060
tactgaggtc acgtgaggt attatttgcc taagactctc gtaaatgact caataaggga 3120
tcaactccat tagtgacgtg gccagcattg agtgatcagc aaaaatatct cattgagtat 3180
ttctatgatg tcacggctgt gccttttaac ataatgtaac ttgaatgtat gcctcttate 3240
tattaaaaaa attacaaatt 3260

<210> 1486

<211> 3552

<212> DNA

<213> Homo sapiens

<400> 1486

cacatgcagg ccatcatcca gggctttctct tacgacctcc tgaagaagat agactccccg 60

cagcggcttg tctacagccc gtccctggtgt gggggcctcg tgcagggaaa ccctaattggc 120
tctcctaacc gactgcttaa agctggagtc atttctgctc aaaatatcta cagcttttggc 180
tttgggaagt tttatcttac tggggcgaca cagatggcct atctaggatc tcttccggtc 240
attggagaaa aggaagtgat tcaagctgat gatgagccca ccttctcttt cttcagcggc 300
ccctacatgg tcatgaccaa cctagtgtgg aatgggagca gggtcacagt gaaagagctg 360
aatctcccca cccaccaca ctgcagcagg ctgcggctgg ccgacttggt aattgccgag 420
caggaacaca gcagcaagct gcggcacccc tacttgctac agttgatggc tgtgtgtctc 480
tcccaggacc tagagaaaac ccgccttgtg tacgagcgca tcactatcgg cacattgttc 540
agtgtccttc atgaacgacg gtcccagttc ccagtgtctc acatggaggc gattgtgcac 600
ctgctgctcc agatatctga tgccctgaga tacctgcatt tccaggggtt tatccaccgc 660
tccctcagct cctatgctgt ccatatcatc tcccagggtg aagcgaggct gaccaacctg 720
gagtacatgt tggaaagcga ggacagaggt gtacagaggg acctgactcg agtgcccctt 780
cctacgcagc tatacaactg ggccgcacca gaagtgatct tacagaaggc agccacagtg 840
aaatcagaca tctacagctt ttctatgatc atgcaggaga ttttaacaga tgacataccc 900
tggaagggct tagatggctc agttgttaaa aaagccgtag tctcggggaa ttatttagaa 960
gctgatgtca ggcttccgaa accttactat gatattgtta agtcaggcat ccacgtcaag 1020
cagaaagacc gaactatgaa ctttcaagat atccggtata ttctgaagaa tgacttaag 1080
gattttactg gagcccagag aactcaacca accgagagcc ccagagtga gagatacga 1140
ctccatcccg atgtcaatgt ctatctagga ctgacttcag aacaccccag agagacacct 1200
gacatggaat tcatagaact aaaggaaatg ggcagtcaac ctcatcacc aagggttcac 1260
tctttattca ctgaggggac actagatcct caggccccag atccatgtct gatggccagg 1320
gagactcaga atcaagatgc tccttgccct gctccattta tggcagaaga ggccagcagc 1380
cccagcacag gtcagccaag cctctgcaat ttcgaaatca acgagatcta ctcaggctgc 1440
ttgatitttg aagatgacat agaagagcct ccaggagctg cttcatcttt ggaggcagac 1500
ggacctaac aggtagatga actgaaatcc atggaagaag agctggataa gatggagaga 1560
gaggcgtgtt gttttggcag tgaggatgag agctcttcaa aagctgagac agagtactct 1620
tttgatgact gggactggca aaacggttca ctcagttcac tcagccttcc tgagtcaacc 1680
agagaagcca agagcaattt gaacaacatg tccacgactg aggagtatct catcagtaag 1740
tgtgtgctgg atctaaagat tatgcagaca ataatgcacg agaatgatga taggctgagg 1800

aatatcgagc agatattaga tgaagtcgag atgaaacaga aggaacagga agagcgcatg 1860
tctttatggg ccacttcaag agagtttaca aatgcctaca agttacctct ggccgtgggc 1920
cctccatctt taaactatat tcctcctgtc ctacagcttt cagggggtca gaagccagac 1980
accagtggca actaccaac cctaccaaga ttccaagaa tgctgccgac tctttgtgac 2040
cctggaaaac agaacacaga tgaacaattt cagtgcactc aaggagccaa ggacagtttg 2100
gaaacaagca ggatccaaaa taccagtagc cagggaagac ctagagagtc cactgcccaa 2160
gccaaagcca cacagtttaa tagtgactc ttcactctgt caagccaccg gcagggacct 2220
tctgcatcac ccagctgtca ctgggactct accaggatga gtgtggaacc tgtttcttct 2280
gaaatctata atgcagagtc cagaaataaa gatgatggaa aggtacactt aaaatggaaa 2340
atggaggtga aagaaatggc aaagaaagca gctactggac agctcacagt acctccttgg 2400
catcctcaga gtagtctgac tttagagagc gaggctgaaa atgagcccga cgccctgctg 2460
cagcccccca ttaggagccc agaaaacacg gattggcagc gagttattga gtatcatagg 2520
gaaaatgatg agcccagagg aaatggcaag ttgacaaga cgggcaacaa tgactgtgac 2580
agtgaccagc atggcagaca gcccaggctt ggaagcttca ccagtatcag gcacccatct 2640
cccagacaaa aggagcaacc agagcatagt gaagccttcc aagcaagttc tgacacattg 2700
gtggctgtag agaaatctta cagtacctcg agtcccatag aagaggactt tgaaggaata 2760
caaggtgcat ttgcccaacc tcaagtctct ggtgaggaaa agttccaaat gagaaaaatt 2820
cttggaaga atgctgagat tttgccagg tctcaatttc aacctgtacg aagtactgaa 2880
gatgaacaag aagagacatc aaaggagtca ccaaaggaa tgaaagagaa agacatatca 2940
ttgacggata ttcaagacct gtctagtatc tcctatgaac cagacagctc ttttaaggaa 3000
gcttcatgca aaacacccaa aataaaccat gcacctacca gtgtcagcac tccactcagc 3060
ccagggtccg tttcttcagc tgccagtcag tataaagact gccttgaaag tatcacattt 3120
caggttaaga cagagtttgc ctcttgctgg aacagtcaag aatttattca aactttgtct 3180
gatgacttta taagtgtccg agagagagca aagaaactgg attctctcct tacttctct 3240
gaaactcccc cttcaagact gactggctct aaaagattgt cttcatttat tggggctgga 3300
tccccagcc ttgttaaggc atgtgactca tcaccacccc atgccacca gagaaggagc 3360
ctgcctaaag tagaagcctt ctcacagcat cacattgatg agctgccacc accatctcag 3420
gagctacttg atgacattga gctcttgaaa cagcagcagg gctcatccac ggtgttgcat 3480
gagaacacag caagtgatgg aggaggcact gcaaatgatc aaaggcactt agaagaacaa 3540

gaaactgaca gt

3552

<210> 1487

<211> 4023

<212> DNA

<213> Homo sapiens

<400> 1487

aaagaactgt ggaactatgt aaaagaccaa acctatgact gattggacta cctgaaagag 60
acaaggagaa tggagccacg ttgggaaaac acacttcaag atatcatcca gaagaacttc 120
cccaacctag caagacaggc caacattcaa attcaggaaa tccagagaac cccagtaaga 180
tactccacaa gaagatcaac cctcaagaca catagtcatc agactctcca agatcaaaat 240
gaaggaaaaa atgttaaagg cagacagaga caaagggcag gtcacctaca acgggaagcc 300
catctgacta agagtgggcc tctcagcaga aaccccacaa gccaggagac agttgggtcc 360
aatgggtcaac attcttagag aaaagaattt ctaacctaga atttcatatc tggccaaact 420
aaccttcata agtgaaggag aaatcctttt cagacaagca aatgctgagg gaatttatca 480
ccaccaggcc tgccttgcaa gacctcctga aggaagtgct aaagatggaa aggaaaaact 540
ggtaccagcc actgcaaaaa tgtactgaag tacaagacc aatgacacta tgaagaaact 600
gcatcaacta gtgagcaaaa taaccagcaa gcatcatggt gacaggatca aattcacaca 660
taaccatatt aaccttaagt gtcaatgggc taaatgtacc aattaaaaga cacagaccag 720
caaattggat ataaagagtc aagattcagg tgtgctgtac tcagggttcc tatctcatgt 780
gcaaagacac acataggctc aaagcgatgg aggaaaattt accaagcaaa tggaaagcag 840
aaaaaagcag gggttgcaat cttagtttct gacaaaacag actttgaatc acaaagata 900
aaaaaagaca aagaagaaca tcacaatgat aaaggaatca attcaacaag aagagctaac 960
tatacctaaat atgtatgcac ccaatacagg agaaccaga ttcacaaaac aagttcttag 1020
agacctacaa agagactcag gctaccacac aacaatagtg ggagacatta acacccatt 1080
gtcaatattg gatcatctag gcagaaaatt gacaagaaag gacttgaaca cagctctgga 1140
tcaagtgaat ctcatagata tctacagaac tctccaacac gaaacaacag actatatatt 1200

attcttagtg gcatatgaca ctctaaaatt gatcacaaaa ttagaattaa aacactcctc 1260
agcaaatgca aaataactga aatcataaca atctctcaga ccacagtgca atcaaattag 1320
aactcaagat taagaaactc actcaaaacc acacaactac atggatattg aacaacgtgc 1380
tcctgagtga cttctgggta aataataaaa ttaaggcaga aatcaagaag ctctttgaaa 1440
ccaatgagaa caaagagaca atgtaccaga atctctggga ggcaactaaa gcagtgttaa 1500
gaggtaaatt tatagcacta aatgcccaca tcataaagct agacatatct caaattgaca 1560
ccctaacatc acaactaaaa gaactagaga agcaagagca aacaaatcca aaagttagca 1620
gaagagaaaa aaaaaatgac taagatcaaa gtggaactga aggagacaga gacatgaaaa 1680
acccttcaaa aaaaaaaga aagaaataaa acatgttcaa atagcaagag ataaaatcaa 1740
attgtctgtg tttgcagaaa atgtgattct atatctagaa aaccacatcg tcacagccca 1800
aaaactcctt aagctgataa gcaagttcag caaagtctga agatacaaaa tcaatgtgca 1860
aaaatcacaa gcattcttat acaccagcaa tagacaatat tcttcaattc ctatacacca 1920
acaataggca agagagccaa atcatgaatg aactccatt cacaattgtt acaaagagaa 1980
taaaataacct aggaatacag ctaacgatgg atgtgaagaa cctcttcaag gagaactaca 2040
agccactgct caaggaaata agagaggaca caaacaatg gaaaaatatt ccatgctcat 2100
gggtgggaag aatcaatctc atgaaaatgg ccatactgcc caaggtaatt tatagattca 2160
gtgctattca catcaaacta ccattgacat tcttcacata attaaaaaaa aactacttta 2220
agtttcatat gcaacaaaaa aagagactga atagtcgaga caatcctaag ccaaagaac 2280
aaagctggag gcatcatgct atatgacttc aaactatact acaaggccac actaatcaaa 2340
acagcatggg actgttacca aagcagacac acagaccaat ggagcagaat agagatctca 2400
gaaataagac cacacatcta caaccatctg atctttgaca aacctgacaa aaacaagcaa 2460
tgggggaagg aatacctatt tattttattta tttatttatt ttgagacaaa gtctcactct 2520
gtcaccaggc tggagtgcag cggcatgac tcagctcact gcaacctctg cctcccggat 2580
tcaagtgatt ctctgcctc agcctcctga gtagctggga ctacaggttc gagccaccac 2640
gcccagctag tttttgtatt tttagaagag acggggtttc accatgttgg ccaggatggg 2700
cttgatctct tgacctcaag atccacctgc atcagcctcc caaagtgtg agattataga 2760
catgagccac tgcacttggc caggattccc tatttaaagtg gtgctgggaa aactgactag 2820
ccatatgcag aaaactgaaa ctggacctca tccttacatc ttatgcaaaa attaaactcaa 2880
gatggattaa aaacttaaag gtgaaacccc gaactgtaaa aaaccctaga agaaaatcta 2940

ggaagttcca ttcaggacat aggcattgagc aaagatttta tgatgaaatc atcaatagca 3000
 attgcaacaa aagcaaaaat tgataaatgg gatctaatta aacgtaagca cttctgcaca 3060
 gggaaagaaa ctatcatcag agtgaacaag caacctacag aatgggagaa tatttttgca 3120
 atctaccaat ctgacaaagg tctaatatcc agaattctaca aggaacttaa acaaatttac 3180
 aagaaaataa caaccccatc aaaacatggg caaaggccac gaacagacat tctgaaaaga 3240
 agacatttat gcgtccacaa acatatgaaa aaaaaagctc aacactagtg tttattagag 3300
 aaatgcaaat caaaaccaca atgagatacc atctcatgcc agtcagaatg gcaattatta 3360
 aaaagtcaag aaacaacaga tgctagagag gctgtggaga aacaggaaca cttttacact 3420
 gttggtggga atgtaaacta gttcaacat tgtggaagac agtgtggcaa ttcctggagg 3480
 atctagaagc agaaatacca tttgaccag caatccatt actaggttta tatccaaaga 3540
 aatataaatc attctgtttt aaagatacat gcacacttat gtttattgca gcactattca 3600
 caatagcaaa gacatggaat cagcccaaat gtccatcaat gatagactgg ataaagaaaa 3660
 tgtgatacat atacaccatg gaatactatg cagccataaa aaggaatgag atcatgtctt 3720
 ttgcagggac atggatgaag ctggaagcca taaacttcag ctaattaaca caggaacagg 3780
 aaaccaaaaca ccacatgttc tcataagtgg gaaccgaaca atgagaacac atggacacag 3840
 ggaggggagc aacacacacc ggagcctgtt gggaaggtag ggggaaggag agcatcacga 3900
 taaatagcta atgcacgtgg ggcttaatac ctaggtgata ggttgatagg tgcagcaaac 3960
 caccatggca catgtttaac tatgtaacaa acctgcacat cctgtacatg tatcctggaa 4020
 ctt 4023

<210> 1488

<211> 3325

<212> DNA

<213> Homo sapiens

<400> 1488

acttgggtcaa aaattgattg accatattgg agcagggtcta tttctggagg ctctattctg 60
 tttcatttat ttatatgtct atattttcac taggttagat attgtagcat tagagtaa 120

cttgtaattg ggtagaatga ctaccccaat tttatTTTTt ttttccaaaa ttgttttggc 180
tattctaate cttgtgcctt tccacataaa atttagaatc agcttgtcta tatctacaaa 240
aagaccttct gacactttgc ttgaaatagt tttaaaacaa ttgacaagtt tgagaggaat 300
tgacatcttc actatactgg gtctttcaat acatgaacgt atatgtcttc taattatatg 360
ggctctcttt aattttttca tcagtatttt gcatttctca gcatgtagat tttatacata 420
ttttgtgaga tttatagcta agtttttggg aggagctatt gcaaatagca ttgaattttt 480
aatgttgaat tccaattatt attaatgcta gtagaaatat gattgatgtt tatgggtttt 540
ccttgtaact tatgatccta tttgaccacc atattcattc aaggaactgg attttttctt 600
gtagatattt aaagattttt catgtagata atcatgcctt ctgcaaatag agatactttt 660
atttctttat tttcaatatg tgggactttt ttgttttaat tctggctttg ttacactggc 720
taagacttcc attcctattt taaatagtag tgggtgggaat atgcatcctt gtcttgcttc 780
cagttttagt gaggaagct tttagccctt cattttatgt gagctttgtt gctagcacac 840
ttttcgctgt tagaagcaag agttgatgta agatttttaa gtaataacca ggatttgtat 900
ttcttccaca agttgtcttt aaatggtttg ttgactgaaa caatgagaaa tggcattgtc 960
caatcattcc accaaaaata gcaaccaagc tcaaacaatgt gccagtataa acaacgatgc 1020
caccactgct acctggccta caacaattgt acaccatgga tttcaagatg cattcagatt 1080
ctagaaatgt taagaggtga aaatgtgcat cttggaactg atagcatgta atatgtttct 1140
tataataagg ttttaaaaaa taactccatt tcaaagatca gatggttgta gatgtgtggt 1200
gttatttctg aggcccgctt tctcttccat tggctctatac atctgttttg gtgccagtac 1260
catgctgttt tggttactgt agcctttagt tatagtttga agtcaggtag tgtgatgcct 1320
ccaactttgt tctttttgct taggattgtc ttggctatgt aggctcctt ttggttccat 1380
atgaaattta atgtagtttt ttctaattct gtgaagaaag tcaatggtag cttgatggaa 1440
atagcattaa atctataaat tactttgggc agcgtggcca tttcatgat attgattctt 1500
cctatccatg agtatggaat gttttcccat ttgtttgtgt cctctcttat ttccttgagc 1560
aatggtttct agtttttctt gaagagggtcc tttacatccc ttctaagttg tattcctagg 1620
tattttattc tctttgtaac aattgtgaat gagaatttgc tcatgatttg gctctctgtt 1680
tgtctattat tgggtgtatg gaatgcttgt gatttttgca cattgatttt gtatcctgag 1740
actttgctga agttgcttat cagcttaagg agattttggg ctgagacaat gcggttttct 1800
aaatatacaa tcatgtcatc tgcagacaga gataatttga cttactctct tcctatttga 1860

ataacactta tttctttctc ttgcctgatt gccctagcca gaacttccaa tactatgttg 1920
 aataggagtg ttgagagagg gcattcttgt cttgtgccgg ttttcaaagg gaatgcttcc 1980
 agcttttgcc catttagtac gatattggct gagggtttgt cataaatagc tcttattatt 2040
 ttgagttatg tttcatcaat ctgaccggaa aagcaatggg gaggggattc cctatttgat 2100
 gaatgctgtt gggaagactg gctatccatg tgcggatagc tgaaactgga ccctttcctt 2160
 acaccttata cagaaattga cttaagatga attaaagatg taaacgttaa gacctaggac 2220
 cataaaaacc ctggaggaaa acctaggcag taccattcgg gacataggca tgggcaagga 2280
 cttcaggagg aaagcaccaa aagcaatggc aacagaggcc aaggttgaca aatgggatct 2340
 ggtaagctg aggagcttca gcacagcaag ggaggctacc gtagagtga acgggcaacc 2400
 tacagaatgt aagaaagctt ttgccatcta tccatctgac aaagggtga tattcagaat 2460
 ctacaaaaaa cctaaacaaa tttaacagaa aaaaataaac aaccccatca aaaagtgggc 2520
 aaaggatatg aacagactct tcttagaaga agacatttat gcagccaaca aacatatgaa 2580
 aaaaaagctc atcatcactg gtcattagag aaatgcaaat caaaaccacg atgagatacc 2640
 atctcacagc aattagaatg gcaatcatta aaaagtcagg aaacagcaga tgctggagag 2700
 gatgtggaga aacaggaatg cttttacact gttggtagga gtataaatta gttcaaccat 2760
 tgtggaagac agtgtggtga ttcttcaagg atctagaact agaaatacca ttgacctag 2820
 caatcccatt actggatata taaccaaaagg atgataaatc attctgctat aaagacacat 2880
 gcacacatat gtttattgca gcaactattca caatagcaaa gacttggaac caacccaaat 2940
 atccatcaat gatagactgg ataaagaaaa tgtggcttat atataccagg gaatactatg 3000
 cagccataaa aaaaggatga gttcatgtcc ttgcaagga catggatgaa actggaaacc 3060
 atcattctca gcaaactaac acagaaacag aaaaccaaac accacatgtt ctactcata 3120
 agtgggattt gaacagtgag aacacatgga cacaggagg ggaatatcac aactggggc 3180
 ctgtcagggg tgccagggga gggacagcat taggagaaat gtagatgacg gtttgatggg 3240
 tgcagcaaac caccatggca caggtgtacc tatgtaacaa acctgcatgt tctgcacatg 3300
 tatcccagaa atggaagtat aattt 3325

<210> 1489

<211> 3500

<212> DNA

<213> Homo sapiens

<400> 1489

aagagggg	cg	ggactggtgc	ggccgagtga	cagttgaccg	gttttaacca	agtgactggt	60
tctagccacg	ttatgtgcgg	cccagccatg	tccctgccg	gtcctccgtg	gccagagtc	120	
cgagtcgtgc	aggtgctgtg	ggccctgctg	gcagtgtcc	tggcgtcgtg	gaggctgtgg	180	
gcgatcaagg	atctccagga	atgcacctgg	caggttgtcc	tgaacgagtt	taagagggt	240	
ggcgagagtg	gtgtgagcga	cagcttcttt	gagcaagagc	ccgtggacac	agtgagcagc	300	
ttgtttcaca	tgctgggtgga	ctcaccatc	gacccgagcg	agaaatacct	gggttcct	360	
tactacctga	agatcaacta	ctcctgcgag	gaaaagtccc	cagtcaactt	ctaccgtgg	420	
aagatagagc	agctgcagat	ccagatggag	gctgccccct	tccgcagcaa	agagccatgc	480	
atggcagaag	aagtgtgtag	catgagctgg	tacacgcca	tgccatcaa	gaaaggcagt	540	
gtggtcatgc	gtgtggacat	cagcagcaat	ggcctgggga	ccttcattcc	agataaaagg	600	
ttccagatga	atatcaacgg	cttctgaag	agagaccggg	acaataacat	ccaattcact	660	
gtgggagagg	agctcttcaa	cctgatgccc	cagtactttg	tgggtgtctc	atcgaggccc	720	
ttgtggcaca	ctgtggacca	gtcacctgtg	cttctcctgg	gaggcattcc	caatgagaag	780	
tacgtcctga	tgactgacac	cagcttcaag	gacttctctc	tcgtggaggc	acctatacca	840	
cactctatga	gagaaaccgc	ggcagtgga	gttgattcgc	tgtcctggcc	agcgagtgc	900	
tcaagaagct	gtgccctgtg	tatttccata	gcaatggctc	tgagtacata	atggccctca	960	
ccacgggcaa	gcatgagggt	tatgtacact	tcgggaccat	cagagatggc	caggtgtcct	1020	
ttgagatgct	gccaggcag	tggctctgtg	gcgagcagat	aggagttacc	acctgctcca	1080	
taatttggtc	tgaatacatc	gcgggtgagt	atactctact	gctgctgggtg	gagagtggat	1140	
atggtaatgc	aagtaaactg	ttccaggtgg	tcagctacaa	cacagctagt	gatgacctgg	1200	
aacttctcta	ccacatccca	gaattcatcc	ctgaagctcg	aggattggag	ttctgatga	1260	
tcctagggac	agagtcctac	accagcactg	caatggcccc	caagggcatc	ttctgtaacc	1320	
cgtacaacaa	tctgatcttc	atctggggca	acttctcct	gcagagctct	aacaaggaaa	1380	
acttcatcta	cctggcagac	ttccccaagg	aactgtccat	caaatacatg	gccagatcgt	1440	
tccgtggggc	tgtggctatt	gtcacagaga	cggaggagat	ctggtacctc	ctggagggca	1500	

gctaccgggt ctaccagctg ttcccttcca agggctggca ggtgcacatc agcttaaagc 1560
tgatgcaaca gtcctctctc tacgcatcca atgagaccat gctgaccctc ttctacgaag 1620
acagcaaact gtaccagctg gtgtacctta tgaacaacca gaagggccag ctggtcaaga 1680
ggctcgtgcc cgtggagcag cttctgatgt atcaacagca caccagccac tatgacttgg 1740
agcggaaagg gggctacttg atgctctcct tcatcgactt ctgccccttc tcggtgatgc 1800
gcctgcggag cctgcccagt ccgcagagat acacgcgcca ggagcgctac cgggcgcggc 1860
cgccgcgcgt cctggagcgc tcgggcttcc acaacgagaa ctcgctcgcc atctaccagg 1920
gcctggtcta ctacctgtg tggctgcaat ccgtgtacga caagccgtac gcggaccgag 1980
tgcacgaccc cacctggcgc tgggtggcga acaacaaca agaccaggat tactacttct 2040
tcttggcgag caattggcga agcgcgggag gcgtgtccat agaaatggac agctacgaaa 2100
agatctacaa cctcgagtcc gcgtacgagc tgccggagcg cattttcctg gacaagggca 2160
ctgagtacag cttcgccatc ttctgtcgg cgcagggccca ctcgttccgg acgcagtcag 2220
aactcggcac cgccttccag ctgcatagcc aggtggacgt gggcgtggtg ctggccgacc 2280
ccggctgcat cgaggcctcg gtgaagcagg aggtcctgat taatcgcaac tcggtgctat 2340
tttcgattac gctcaaggat aaaaagcttt gctatgacca aggcattagt ggacatcacc 2400
ttatggagac ttccatgacg gtcaatgtgg tgggttcac cgggctctgc ttccaggaaa 2460
cacacctggg gccccatatg caaggcaacc tgatggtgcc agtgttcatt ggctgcccc 2520
caggcaagcg cctggccttc gacatcacct acacgctgga atacagccgc ctgaagaaca 2580
aacactactt tgactgcgtt aacgtgaacc cggagatgcc ctgctttctc ttccgggaca 2640
ttttctaccc cttcttcttg attcaagatt tgggtgacagg agactccggc agtttccggg 2700
gcagctatgt tctgctggtg gtgggtggcg ggccacact ggacagcctc aaggactaca 2760
gtgaggacga aatctaccgc ttcaacagcc ccctggacaa gaccaacagc cttatctgga 2820
ccacgaggac cacaaggacc accaaagact cagcctttca catcatgtcc cacgagagcc 2880
caggcatcga gtggctctgt ctggagaatg ccccatgcta tgacaatgtt cccaaggca 2940
tctttgcccc tgaattcttc ttcaaggtgt tgggtgagca tagaggagtg gacacgagca 3000
cctactgcaa ctaccagctc accttctgc tgcacatcca cgggctgcca ctcaagtcca 3060
agcgggccct tttcatcatc atggtgtcag ctacgctgtt tgtgggcctg gtgatcttct 3120
acatcgccct ctgcctcctg tggccctcg tgggtgaaggg ctgcacgatg atccggtgga 3180
agataaaca cctcattgcc tcagaatcct actacaccta cgcctccatt tccggaatct 3240

cgagcatgcc gtctctgaga cattccagga tgggctccat gttcagctcc aggatgacag 3300
 aggacagggc tgaaccaag gaagccgtgg agagacagtt gatgacctga gtgtcccacc 3360
 tgccccagcc cccagttact gtcacgcctc tcttatgagg cccatcttga agatgcaacc 3420
 tgtcaccag cccaggcctc tctttctgtt ttgcttgatg tttacttctc gttcagactc 3480
 aaataaagcc ttttttcagg 3500

<210> 1490

<211> 4221

<212> DNA

<213> Homo sapiens

<400> 1490

agtgtgaagg ttaaggaagg cttcctggag gagatgacat ttaaaactgaa ccttaaagtt 60
 tgccaaatga acaagaggca gcatgggcat cctaggtact tttgtcatct tttctgccac 120
 tgcaggtggg ctatgagttg ggagaaggga ccatgtcaca ttggtattgc acccccaggt 180
 ccagcttttag gaggggccca agaagtgggg atgggatgga tgaaggagtg cctgaacaaa 240
 tactgcaggt caccagcaga atgtgtcacc tccaggggaga gcaaacctgg ctttggggtc 300
 gggagtcctg ggttccagcc ccagctccat ccagttctaa ctccaatttc cctgaccatg 360
 gtgagggaaa gagaaaggga aactaccatt acttacaggc ctactatgtg ccaaacactt 420
 gtattgacct ctttcaaag ttatttctact aatctgcaca gcaacctgc gaagaaggaa 480
 ttgtgatact catgcttagg tgagttaagg ggaatttttt aaggtcacag agctcagaga 540
 gtccagagag attcagaaca ggcctgcctg acacggtcct ctactttggt cagcctcttg 600
 gagaggcact tctaagtctg ttagtgtcta ccacatgggt tcttgcagga gaggaggag 660
 ggtggatctt gccagacctt atggggcatt cctgtgtcca ccacaaagtc agggactcta 720
 ggtttaactt ctccccacca ttccctggac tcttgaccag cagcccttc gccctgcagc 780
 aagggtcttg gccaggttc agtcttttcc acctccccag aagaggtgtc tgcccctggc 840
 cagtcagccc caccattaaa gccgtggcac tttgatgcag ctgagatgcc cttttcacc 900
 tcgtcccctc cgccccggct tctgtgcgcc ctctctgctg tgatgggtgtg tgtgcttgct 960

tctcccagtg gaaggtgaac tccttaaggg agctgtgcca tcttggacaa gtcacttaac 1020
cggcctgtgc ctctgtttcc tcacctgtag tatggggatg atgacttgac cacctcctag 1080
agtggtcagg ttacataaa gcacttagaa cagtgcctgg cacataggaa gtgctctctg 1140
tgagtcagtt aaattgcttt tagggttctc atgactcttt tccgtgtctc cagtgtcccag 1200
cccagaagct gtgcacagca ggcctgaata ttgggtgggtg gaattgggtg atggcgggtg 1260
ataggtggag cccctccttt tctgcctcct ccccggtga cctgtcctgc cccctcctcc 1320
agctctgcct cccagctct ttcctccac aatacagaca cacgggctca acagtcacag 1380
gagatgtcag gcaagggcat ggaggggaga agcgtttgtg agagtcatgc agcaggcatc 1440
gaagtcctgt tggctgccgt ggggtggggag gccagtgggg gagaggaggg ggataagggt 1500
gaggctgggtg tgcagcttgg acgatggggg gctggtagtg ctaaccctgc cacagggagt 1560
gcaagaggag ggcatgccta aggaggaaag gagccaagtt tctttctttt ttttttttt 1620
tggacggcgt ttcattcttg tctcccaggc tggagtgaac tggcgccatc ttggctcact 1680
gcaacctccc cctcccaggt tcaagtgatt ctgatgcctc atcctcctga gtggctggga 1740
ttacaggcac ctgccaccat gccagctaa tttttgtatt tttagtagag atggggtttc 1800
cccatgttgg ccaggctagt ctcaaactcc tgacctcagg tgatttatcc acctcagtct 1860
ctcaaagtgc tgagattata ggtgtgagcc accttgccctg gccttttctt tctttctttc 1920
tttctttctt tctttctttc tttctttctt tctttctttc tttctttctt ttctttcttt 1980
ctttctttct ttctttcttt ctctttcttt ctttctttct ctccctctct ttctttctcc 2040
tttcttcttt ctttcccttt tccttcttct ctctctccct ccttccctcc ctcttctct 2100
ctctttatct ctttctttat ttccttctct tttcaagggtg gagtcttgct cttgtcacc 2160
aggctagagt gcagtgggtg gatcttggct cactgcaacc tccacaccct agattcaagc 2220
gattctcctg cctcagcttc ccgagtagct ggggcgtgtg ccaccgtgcc cggctaattt 2280
tttgtatttt tagtagagat ggggggtttca ccatgttgcc caggctgggtc ttgaactcca 2340
tacctcaggt gaccaccca ccttggcctc ctgagtagct gggattacag gcatgagcca 2400
ccgtgcccgg cccaagccaa gattcatgtt ggacctgaac tcatgcagca agcagtcct 2460
gagcacatat tccgcaccag agttgatgtt agctaacagg ggcccatgga ggaacaactc 2520
gggttttgtc ctcagggaaa tcccctgttg gatagggggag gcagatggag gcactgaagg 2580
tttccagctg tcgcctcagg aggaagtcca gggcacccaa gggcccaggg aaggaggcag 2640
tcagcctaaa tgaggccagg ggcagtgtca agcctagctt taaggctctg agttttggat 2700

ggagccctgc gaggtggcag gggtcagagt ggaggtgggc atcccaggag aagggcattt 2760
tgccagcaca gaaggggtgg aacagcctgg gtagttcaga gaacaggaga cagcttggtt 2820
ggaagctggc tggctggtgg tgagggtgtg ggctggaggg tgggcacgct gctgttaatg 2880
aggccacagg atctcgtggg aaaggcaaca acaagcagtc acaggggctc ggagctggag 2940
agtgcacac tcagctttgc cacatggtgc tgatggacat cagacggaga cttccagcaa 3000
tctgttggtt ttgcaagtct gaagctccgg gcagagctga gcctggtatc caatgtgcaa 3060
tcccagtgca tgggaggcca gggggctgcc ctgccccct cagcctggga agtaatgacc 3120
ctttgtccc tcagtcctc cagatggagc aggtgcgccc gatccccgag gaatactctc 3180
tggggcggat ggcagaaggc ctgagccacc acgaccccat catgaagggtg ctgtccattc 3240
gaggcctggt catcctggcc cgcaggtctg agaagaccgc caaggatgaag gccctcctgc 3300
cctccatggt gaagggcctg aagaacatgg atgggatgct ggtggtggaa gcggtccaca 3360
acctcaaggc tgtcttcaag gggcgggacc agaagctgat ggacagtgcg gtctatgtgg 3420
agatgctaca gatcctgctg ccgcacttca gcgacgcacg agaggacgtg cgctcctcct 3480
gcatcaacct gtatgggaag gtggtccaga agcttcgggc accacgcact caggccatgg 3540
aggagcagct ggtcagcacc ttggtgcccc tactgctgac catgcaggag ggcaactcca 3600
aggtaagcca gaagtgtgtg aagaccctgt tatgctgttc ttacttcatg gcttgggagt 3660
tgccaaaaag agcttatagc cggaagccct gggacaacca acagcagaca gtggccaaaa 3720
tttgcaagtg ccttgtgaac acccaccgag acagcgcctt catattcctc agccagagcc 3780
tggagtatgc caagaactca cgggcctccc tccggaagtg ctcagtcatg ttcatagggt 3840
ccctggtccc ctgcatggag agcataatga cagaagatcg tctgaatgaa gtgaaagctg 3900
ctctggataa cttgagacat gaccagaag catcagtgtg catctacgca gccaggtcc 3960
aggaccacat cctggccagc tgctggcaga actcctggct gccgcacggg aactcatggg 4020
tgtgttactc agccaccacc caccgtgga gccccagctg tgagaacctg cccacttccc 4080
accagcggcg ctccctggatc atgcaggcac tgggctcctg gaagatgtcc ttgaagaagt 4140
gacgtccctg agccccaac ctcctcagg gtggttgagt tccagccatg ctccctataa 4200
atgtcatgtg gcttacctct c 4221

<210> 1491

<211> 3020

<212> DNA

<213> Homo sapiens

<400> 1491

```
tctgacccaa atctagggct cttgcttgct gcatectgtt tattttcatc caaaaggcta 60
catggcaatt ggggtgttta tgtttagatt tcctccctgg cttcagtcac ttactgagaa 120
cttatgcgcc aggccctgtg ctgcatcttt tacacacatc actgtgctta cccattcagg 180
atgctttaac aaagtacat ccactggatg gcttataaac aacacaaatg gatttctcac 240
agttctggag actgaaagtc ccagatcaga gtgccagcat ggtgggattc tgggtgggggc 300
cctcctcaga gttgcagact gctatcttct caccatgtcc tcacatagag gaaggggcaa 360
gagagctctc tagggtgcta atcccattca tgaggtttcc accttcatga cctaatacacc 420
ttcaaaagtt cctacctcct gataggattt cagtttacga ggtttagggg aatacaaaca 480
ttcagttcgt aacggtcacc ttgtttagtc ttcagattgt ctagaagagg aaccagaga 540
tctaagatga aataattttg cagaggtagc tcgcctagtc tgaggaggat catggattgg 600
tacccaagta ttctgggctg ctgtcgcctg agcccttgac actctatctt cttgaggtga 660
atgtgcttcc tgtccttgag aagtgaaagg aaattagcag acaagatcct tcaaaatatg 720
gtcataagga actctgttca gtgtcaaggt actgattcag gcagttaact ttttgggagg 780
ataaaaggaa aagagatggg aatgctttgt ggtctagaaa gatcttgtga agaaagtaga 840
atttgaactt gcagaggata ctaagagtag cttcaaggtg tgggtggaagg gatagaagga 900
ggaccaggca ctggtgggaa atgctgggca catttggggg aaatgcattg gaatgaagca 960
gaggggtttt ggtaggtgac aaaaggacag gtaaactggg gctgctgaag aggactcagg 1020
gcatcagtgt gtgtggcctt gatatttggc atgtacatgt ttactttgtg ataccaccaa 1080
aatgcagtct taactagaat ggtttcagtt ggcttgtgac tgattttcgt ttaattgaaa 1140
ttttagtgga atgaaatcct gtttggcttc ttagggctc tcgttcccca agagcttgcc 1200
taatagtctt gcttcctttt aactccatga gaaataaaag ccttattgtt tcttatgtat 1260
tcttatgatg tgattagatc ttaagtgttt acatgtatat tggatattta gtaaacattc 1320
cttttgggtg ggtgaaggag ggaggttatg catcattgag aaactctggg tttgggattt 1380
tctaaggaaa gaggatggca tagaagtcag gacatctcta ggccaggcat ggtgggtcat 1440
```

gcctgtaatc cctacacttt gggaggctga ggcggacaga tcacctgagg tcgggagttc 1500
aagaccagca tgaccaacat ggagaaaccc catctctact aaaaatacaa aattagcctg 1560
gtgtggtgac gcatgcctgt aatcccagct aactcgggag gctgaggcag gagaattgct 1620
tgaaccaggg aggcgagggt tgtggtgagc caagatcaca ccattgcact ccagcctggg 1680
caacaagagt gaaactccgt ctcaaaaaaa aaaaaaaaaa aaaaaaaaaa agatgtcctt 1740
gtcaggacat ctgagacaag tcagaagtta aggtggggag tgatttgcac caaagactag 1800
atgcagataa tactcttggt aggaagctta cagttctttt caaactttgg gtcataaggga 1860
gcaatcatca gtttccctaa agcttttggg cagggttaata acaagtgaag ttcactcatt 1920
aataatcatg gttgactgtg atgagctatt ctccaccaag atttgaataa atgacttaca 1980
tatctgcttt acataagagc aattattggt atagtttctg gagaagaaat aaaggataga 2040
tcggagactc aactgggagt ttggcaaggg gctatgaaaa ttgcgtgtga tctagatggt 2100
agaatgggat tttttttttt aaaagaagaa tgtctttttg tctattattc tcatcttacc 2160
tattttcttt tttaatgttg cagtgtgcaa agatccacct tacaaagtag aagaatctgg 2220
gtatgctggt ttcattttgc caattgaagt ttatttttaa aacaaggat gtaatcttta 2280
cccattaatc tttcagtaga cgatccacca ttagccaaat gatgttttaa ataattttga 2340
ctcataagca cttctgtcac tagatgattt taaaataaaa gttaaatttg tcttctagga 2400
attttggcta tcattaccct taattatcaa ggaagtggct agaagaagat aattttaatt 2460
atatgaagtc agattatgtg aaattcatta agtgttcctt taaagagagg agtgattacc 2520
attttggaaa agataaatat gtttgtaaaa tagaaaagaa gaattatagt ttttcagtaa 2580
aatgcttctt ttctcathtt catgtctgta gaattttttt gaggcttgca aagaatactc 2640
tcattttatc tttagctggt acccacacca tacatgtata tagttatttc aacttcagat 2700
atatggattt tactggattt aaaagttttc aggcctggcg cggaggctca cacctgtaat 2760
cccagcactt tgggaggccg aggcgggcgg atcacttgag gtcaggagtt cgagaccagc 2820
ctggccaaca tggtgaaacc tcgtctctac taaaaataca aaaattagcc gagtatggtg 2880
gtggatgcct gtaattacag ctacatagga ggctgaggca agagaatcac ttgaacctgg 2940
gagacggaga tggcagttag ccgagatcgc actactgcat tccagcctgg gtgacagagt 3000
gaggctccat tatttttctt 3020

<210> 1492

<211> 3067

<212> DNA

<213> Homo sapiens

<400> 1492

agtgttcctg	ctgccagaat	tggatccaac	ccattgttcc	agacaagatc	agggcaacta	60
gtatggaaaa	cataacctca	agtatctttg	atgtaatctc	caagggaaaa	gttgctccaa	120
ctttttctta	ctaggaggaa	gctgaggcac	atggagctga	aaaacttgat	ccaggccagg	180
caggcatttg	cttagagcag	gctgtgtgcg	agcccagcgt	caagtgattc	cggcctcctc	240
gagtcagcgg	tgggtgggatg	aggctctgcc	gaggggactg	gctgtgaagg	atgagttcag	300
ggtgggatga	cggaccgctt	ctgggaccag	tggtatctct	ggtatctccg	cttgctccgg	360
ctgctggatc	gagctttggc	ttctttaaga	ggttttggca	agaatgagat	caaactcctg	420
atggaaaaga	tggccctggg	gaagccttgc	tatacagccc	aaggtgtatt	catctctgtg	480
aggaatagtc	ttggtgtgcc	gggagatcaa	taccagggtg	aagcagacag	ctgcacagag	540
caggtgaaac	agggccctta	tcaggggaga	aatcaaagat	ggaggaaacc	aaaccagcac	600
acactaaaag	cagttttctca	ctagcaccga	gaaacaggcc	agtgggagcc	cagacttgag	660
atgagggcgt	taagaagggc	atcagaactt	cacactgatg	aagattatag	actgggagaa	720
gggagaagag	accactagat	gtgaatcctc	cttatctttg	tgacctcaga	aatgcttgaa	780
tccatgagtc	acaaacttag	gctcaagttc	tggtccatt	gccttctaag	tgcccttgaa	840
taaatggcta	agggttagaa	gacagggtcc	agtcttccta	atgaggcatt	gaaagtctag	900
gtggaataga	tgcttgctgg	agcctgtgga	tattataaaa	gaaagagctc	actgccttaa	960
tgtggtcagg	agaggcagga	gtgagagcca	gtgtgaaggt	gtgggagttg	gaaggaactt	1020
ggaactcaac	ttcttttggc	ccctcaactt	gagattcaca	aagaaaaaaa	gcaatgtctc	1080
ctcgctgaaa	gcaaaatgga	agctcctcct	tgcacagtgc	agccccttcc	tactgttagg	1140
ttattccaag	tgagaagagt	aaacatgact	tctaaatgcc	atctaacgat	atatgcatat	1200
ctaaaggaga	caaggatgac	tgaatgcac	ttcatgtgta	ggaagtgaag	tgtctgttga	1260
cattaagtac	ttcttcatga	gtgagaggag	gcccattgat	gagatgacac	cagtacctcc	1320
ttctagcact	ctgaattccc	aatgtttact	actgctgtct	ctgaaactgc	agcatcctca	1380

ccaggaccac acagggaaca aaggcaagac acctgaaatc cctttagcca tattcacaac 1440
acttacttca tagataagat gatgtttgaa atatgagaag gatttttttt taaaagagca 1500
ctctattctc ttggtatcct agtatgagtg cctgaaagtg cacattggct agaaggtttc 1560
atgtgagcat cagccccagg gtccagaaga cactcttggc aagcctggag agtgagtatg 1620
ttgaacaggc aatggaagca tccatgaaag gcaggcaact gcgcacgact ttccaacaga 1680
tggctgggtca gttgcacaga gggaaggagc catggattcc atgataatga cacttgtgcc 1740
agcttttgtg tttccagaag ttttgaagat ataagggaac caccacatgt agagtatgtg 1800
aagtcttaca gagacgaggt cctaaggat ttttttgac aaatcacgtt gcaagtaatg 1860
tgaaagcagt ttgaagaaaa aatgtcccca tctaattgtg cattatggca tgcatttctt 1920
tagcctaaat ctgtcagtga catgaaaata catgttttgc tggacacata ataggttgaa 1980
cacataatag gttctaacat ggatctgcat aaagaagaaa gaagaaaggc tataaaggta 2040
gaagaataaa tgtataaata ttacaacagg aactgagct gagtggctct ttaccataga 2100
ccttgctcat agttctcact acaggcttgc tctgagccaa cttccaagtt ctctccttct 2160
ccttccaaac ttccctgtat gtcatttgc tcctgggcca cctgactgat gtttaatgcc 2220
tggatatttg ctttcacctc tgcatgacca agccttggcc aagtcactgt tgactcagtt 2280
gcaacatctg tcccctgctg agggctgttg tagctttcat agctcacagt ccagcttgaa 2340
tctaaccttt tctgtggtca ttcagagtag caagaagcat tgtgttttgg atttactgca 2400
gaactcacac acttaactgt acacagtcag tttttatagc tatcactgca tccagattgg 2460
acagtgacct tggctgagac atcctttacc tctgtttcag attaatttag gcggcatata 2520
aaatctctgt gcactgccag gggaaagtaa agacttcatg aagaaatgga gaagagccga 2580
atagttgacc attgttgctg tataaatctt ggatccaggg ctaaaagggtg gcagtataaa 2640
tgcagatggt gctgctgcca tattttcctg gcacaccttt aagcagcaca tttcaagcct 2700
tcagggttgg aatggcattt ccaaatatag actcaaaaaa tcctcagatg tttgattcta 2760
gaatagagct gggaattctg tcctgcaaat gccttctgca gcatgggagc aaaccactc 2820
ttctgtgtct gttgcttcaa actctctatt ttctggaaac tggagaaaga tgtgggtcta 2880
cattttgaaa tatatgcctt gaacaagaat tatgcaccta tagaaaactt gtcatacatt 2940
gaataaactc tcagtttaca gaaatctatg gaaatatcaa aataaaacat cagaaggagc 3000
agtaactata gaggttatta actaagggga taacctgaaa aataaagtta tatttgctaa 3060
aaactgt 3067

<210> 1493

<211> 3579

<212> DNA

<213> Homo sapiens

<400> 1493

ataatgcaca gaggacaccc acaaccagcc ttcagcatct ggggtgacct gtcctaaaca	60
cctctccgct cgggtgccca gccccacccc tcccctggag caaggagacag tcccagtcca	120
catctcactt gctcctcagc agcagtggac aagctggacc cttcctcctc ctggaagtga	180
gccactcttc agcatctaga gagcagctcc tctcctgcga gcccgtgcca gccagctgct	240
tgggaaggtg agaagcatgc ctgccggca gcccctcgcc caagattgca gccccttcca	300
gagctgggtct gcaggcccat ggctgcctgg tgagcgggtcc aaaggcctag ccccttgcat	360
tcatgaggca cagctctggg gggctgtccc cactctcagt gccataggac cagccaaagc	420
ctcagttcaa ctgcccagag cctccctctg cccagcccca cagccagctt ccctgcagag	480
ataccttctg aaatcacccc acccaactct ccagctctgc atctgtttcc aggaaaccca	540
tcctaggaca gtcagctctg gcagcggacc tgggaggccg actccaaagg cagatgttgg	600
agccggctct ctgaccagcc cgggggcaat ggagaccgc cactcctggg agatggagac	660
tggagagctc tgggtgctgc caaggcataa aaggtgaatc atgcccattg tgagcagggc	720
cgggagacct gcagaggagg acgcaggggc cagggcagca tcgctggccc tgagagaagt	780
agtcacatag gaccaggga ctggacagca cttggctgag gtcaccaatt cactgaaaat	840
gaaaacaggc ttaggtgat caatgaccca ttcaaggcac aaggtgaaat ctacggggcc	900
tccttgacag cactgaggga agccctaatt tgagccaagg acagagagca gagagtgagc	960
tcaggacccg actgcacaag caccacgctt cagaaaaaat ggaattctag cccaggcata	1020
ctccccacaa cacattcagg gctccaatgt gcaaagaatg ggactcgagg ccagggatgt	1080
ggagacttag aggtgcaact cctagatcct ggaatccgcc aagaggagag ggcagggcag	1140
ccccctcccc tatgaagaga cagtgcccc cctgactgaa gagcctgcag cggctcaaat	1200
gaggcaggtt ccaggcgggtg ccagaggaga caagtgcccc ctccctccta caaccagtat	1260

cacagctggc acacccagct gggaaggtgc tggctctgtga gaggaagaac aagatcacct 1320
ccctgtgttc ccagagggct gcaaggctag gggagatgcc gtagcagggg aatacatgcc 1380
catttggggg tgccgcatca tggttcagag ccacgggtaa ggaaggaagt gctggcatgg 1440
agggcttttag cctcctgaaa ggacccgggt tacagagctc atgcttatgg ctccctggctc 1500
ctgcaagctt gcaagaagcg agggcctgtg agaagtggaa atgccagcat taccacagca 1560
gacagcagag gcacagcaga ggctctcaga agtgggcctg cttgagcaga tgggctgcat 1620
aggaaggaaa cccaccatat tccatgttcc caggaagggc aggggggatgt cccgcacccc 1680
cataagaagg cccagtggt gagtggcgca ctcttgccgc cctcgcaggt tgggctgatg 1740
gcaggagacg ctgctgcaga cctcggtgtg gagcagcagg ggcaaggaca ggagcccaac 1800
ctggcggagg ccaggtggca gtgccacagc cagaagcagg cataagtga tgatgaggaa 1860
caagagctga gtggccagcg agtgccgaga gccaggcaat cgcttaaggt ctgccatcag 1920
aataaatcaa ggttgaggga cacaatggtt tgaacatgtc ccctccaaag tgcagatatt 1980
gccagtaagc ttgaacctgt caagaggtgg agcctttaag aggtgaccag gctggggggc 2040
tcctccccct cgagtggggt taactgtgtt tatgaaaggg cttgactctc ccaccttctg 2100
ctgcagggga cacagcgtgc ctgcctccg gatgactcag caccaggcgc catcctggaa 2160
gtggcgagca gccctcacca ggctcccaac ctgccagccc cttgatcctg gacttccagc 2220
ctccagagct gccagaggag acctgtctgt tcctcatcag ttacctatcc ttgggtgttt 2280
tgtttagcgc aactaagcg actgagacag acagccagga cactgagggc aaaggcgctc 2340
tagaaagcca gtgggtccct cgcctggtgt caggtgctaa ggcaccggcc agaggagagg 2400
gcggtccctg ggaggaaggc cctgcaacct catggcaagg atggccagtc acgttcctgg 2460
gtccttcccc aaaggggcag cagtgtgccg gagaaacagg aaggcccagg cccctccagg 2520
actgttgagg gtgactctga gcacctgaag tgccccaggc ccagagtagc agggctcttc 2580
atcttcctgg agggtagtc aggcctcccc gccctggccc acttgcccat gggctctcat 2640
ccatgtggga tgaagtctga agacatcact gggccctccc agcaccacag cccagggcag 2700
gactgcgtga gtgataaata aagacgccct ggaccaccct tgatgaaggc cagctccctc 2760
ccaccttctg gactgccacc tccccactct gcaccttcac cccctctcaa gaaccacagc 2820
ctctagggcc cacctctctg cttctgagga aagcattagg gtggggacgt agatgggtccc 2880
accacttgca ttgtaaaaga cacacagagg gcaatgctgt agtctaagaa aagattttct 2940
aatggtggag tttctggcaa aaaggcatgg ccatcatgag gcagttagtg ctgttgggca 3000

aagaattgct tccatatttg tctcaaagca ttaaaatggg caccaaata atatttcttt 3060
aataaaaaac acaaaaatct tggcctatgc tctcccaaca caccctgagc atgtctctag 3120
catcactaga atgctagagg catttgactg catcttgctt gttacctgtt aacttcttgc 3180
ttccctccct caattgtgag ctactgagg gcagggatag gactgaagta tcctctgaat 3240
ctttaacctc aggcgcttag ggacaggggg atgggacgga gatgtggcag gcagagtcca 3300
gcctccccag agccacctcc cagccctgcg catgtgcttg gcaagtcctt gatgggagcc 3360
caggcaaggc tggggcttgt gcgtgtctcc cctgccaggc tgtgagcacc cgggcaggct 3420
tgtccaggcc agcccagctg ctgcctgaca ccagcccagg tcctggcccc cagagagtgc 3480
ctggtgaagt ctgtctggct gaggtccgac acaagggggg aaggaattat ttccttccct 3540
gaggcttcat tttgaaaata aatttagtaa cttctaaac 3579

<210> 1494

<211> 2796

<212> DNA

<213> Homo sapiens

<400> 1494

gtgggtccca tcctgggggg tgcaggaggg agctccatgt gcccctgctg atctgcccatt 60
ctgagcctca ggggtcctgg gcactgagag ctgggctggg ctcagcgggg gtatgcattg 120
acattgggga cagagagggg atgctgaagc ggggtgctgtc tgggtggggc ctgcctgac 180
gaccagcag gtgcaccag cagccggagg tgcttctagc agagtgaacg ccctgtcctt 240
aggggcatgt gagctgaggc tgggggcctg gagctgcagg gggaggaatt ggggagagca 300
gaggtcccaa agatgtccca aggccccaag accctgggtga aggaatggag gagccagcat 360
tggtcggcga gaggggagtg ggagttggat ggcttgctc tgggctggac acacggtttg 420
cagccacagc tgagctgtgc tgtggagccc agttcccacc tgggcatgtc ctgtcctctg 480
aggcttccgg gagccggacg gccaccgcgg tgcaggcgcg cactcaaggg ctttcgaggc 540
tcactctgtc ggagaggtca gagactgagt gtcgctgctg aaggctgtgg tggaccgggc 600
tggatcgcg attctaggtt agatcgaga tttgggatcg cggattgggg attggattgg 660

ggatttgggg ttggatcagg gatgtggggg ctggataggg gatttgagga ttggatcggg 720
gatttggggg ttggatcctgg atttggggcc gggtcggcgg tggggggcag tgaaaaggtg 780
acagagagca gcccctgctc aggagccggt ggttgggggt ctgagaagtc accaccacca 840
agaagtcttt cggcttcggg agccgcgggg gcgagatggc ccgggctcca tagaccacgt 900
ctgcacgggt ccgggtaccg aatccgggac gcggaacagc ggaaaatcca agggcggctg 960
tcaaggaccg gaggtggagc gcggcctgga gcgcaggagc cggagacctg gaggcccggg 1020
acaagcagca cagaactgct ctacatttgg cctgtgccag cggccatgtg gaagtgggtca 1080
ctctcctggg gaacagacaa tgccaaattg acatctgtga caaagaaaag agtgtgcctt 1140
tgatacaggc acaggctgtg cattgccaaag aagaggcttg tgccattatt ctgctggaac 1200
gtggcgccaa tccaaacctt aaggatgtct acagcaacac tgctctccag tatgtgtgt 1260
atagtgagag cacatcactg gcaaaaaaac tgctttccca tgatgcaaact actgaagcac 1320
tggaacaagg ttattccttt ttttctaat tagtgtaaaa caacacaaga aagaaaatat 1380
gccctggaaa taggctttat cttaaaactc aaacaagact aaagcaactt aaaataaatg 1440
gacatcttgc tgctgtgac aattttctaa caaactgacg tatcatctct cagtggcaag 1500
gcttaagagg gagaaatggg aagggaagaag gagagcaata agaaatatgc aggtcaattg 1560
gaaattaggt catgaggga aatgccaaga agagtTTTT ttcttagttt gttgttcttc 1620
tagtttatgt gttgagacaa ggtgtctttt agctttgggt ctaataattt ttggtttgaa 1680
aatgagagtg agttgaaact tgcctatgga ttaatttttag gaggactctg aggaaccag 1740
attggcagtg aatatgtggt gacaaagtga gaaacacttt agcagaaggc ggaacaaatt 1800
aacttgtggg aagtcggggg ccccaaacgg agggaccggc tgaagctgtg gcagaagaat 1860
ataaattgtg aagatttcat ggacatttat tagttcccag aattaacact tttataattt 1920
aatacgctg tctttactgc agtctctgaa cataaattgt gaagatttca tggccattta 1980
tcaattcccc aatcaatact cttataattt cctatgccta tctttaatct cttaatccca 2040
tcatcttcgt cagctgagga tatatgtcac ctcaggaccc tgtgatgatt gtgttaactg 2100
tacaaattgt aaaacatgca tgtttgaaca atatgaaatc agggcacctt gaaaaagaac 2160
agagtaacag tgattttcag ggaacaagga aagataacca taaggtctga ctgcctgtgg 2220
ggatgggcaa aatagagtca tatttttctt ctcacagaga gcttatagat ggacgtgtga 2280
gtaggagaaa tattgctgaa ttcttttccc agcaaggaat attaataatt gataatcctg 2340
gggaaggaat gcattcccag gggtaggcct gtagacgacc actctgggag tgtctgtctt 2400

atgcagttga gataagggat gaaatacacc ctgttctcct gcagtgtcct caggcttact 2460
aggattggga aattccagcc tggatgaactc tagtcagacc ggttgtctgc tctccaaccc 2520
agtttccttt taagatgttt atcaagacaa tgcattgccc gagggacttg gaccctcatc 2580
agtaattcta atttcaccct tgccttgtga tcttgccttg cccttttgcc ttgtgatctt 2640
ttattgccct ttgaagcatg tgatctctgt gaccactcc ctattcgtac acccctccgc 2700
ttttgaaatc cctaataaaa acttgctggg ttgtcggtc ggggtcgcca tcacagtcct 2760
accaatatgt gatgacacc ccggaggacc agctgt 2796

<210> 1495

<211> 3992

<212> DNA

<213> Homo sapiens

<400> 1495

atctatcttg ctgtgtttgg acaggccagc ccctgaaaca tcttgggcaa tggagggtta 60
acttctcaaa gttaatatagg caagaccagc aaccatgcaa caagaagata ctctataaat 120
gatgattcaa tgaatgccaa gccctgttct atgcactgaa gaccaaaga aataaaagac 180
atcattcctg ctctgacttc aactaaccaa ctaaagaact gttccccaga gcattgttcc 240
tgagaaggaa aagagtccaa acacctacc acacctgctt tgtgccaaga atccacagtt 300
ggattgcaag gacagtgcgt tcaagacca gctgttgaga gtagaaaagc agaagaaagg 360
acccgaggtc agcaagtgcc ctccccacaa tggggcagat ctgccagcga gaatcgagac 420
agggtcttgc tatgttgccc aggctgttct taaatccctg gcgtcaagtg atcctcctgc 480
ctcagcctcc taaagtgtg ggactacagg ctacagcagc tgaaaaacca aaacttcac 540
tacttgctga aagttagatt gacaagtatc tctatgccat gcggctctcc gatgaaactc 600
tcatagatat catgactcgc tttaggaagg agatgaagaa tggcctctcc cgggatttta 660
atccaacagc cacagtcaag atgttgccaa cattcgtaag gccattcct gatggctctg 720
aaaagggaga ttcatgtgcc ctggatcttg gtgggtcttc ctttcgaatt ctgcgggtgc 780
aagtgaatca tgagaaaaac cagaatgttc acatggagtc cgaggtttat gacacccag 840

agaacatcgt gcacggcagt ggaagccagc tttttgatca tgttgctgag tgcctgggag 900
atttcatgga gaaaaggaag atcaaggaca agaagttacc tgtgggattc acgttttctt 960
ttccttgcca acaatccaaa atagatgagg ccatcctgat cacctggaca aagcgattta 1020
aagcgagcgg agtggaagga gcagatgtgg tcaaactgct taacaaagcc atcaaaaagc 1080
gaggggacta tgatgccaac atcgtagctg tggatgaatga cacagtgggc accatgatga 1140
cctgtggcta tgacgaccag cactgtgaag tggcctgat catcggcact ggcaccaatg 1200
cttgctacat ggaggaactg aggcacattg atctggtgga aggagacgag gggaggatgt 1260
gtatcaatac agaatgggga gcctttggag acgatggatc attagaagac atccggacag 1320
agtttgacag ggagatagac cggggatccc tcaaccctgg aaaacagctg tttgagaaga 1380
tggtcagtgg catgtacttg ggagagctgg ttcgactgat cctagtcaag atggccaagg 1440
agggcctctt atttgaaggg cggatcaccc cggagctgct cacccgaggg aagtttaaca 1500
ccagtgatgt gtcagccatc gaaaagaata aggaaggcct ccacaatgcc aaagaaatcc 1560
tgacccgcct gggagtggag ccgtccgatg atgactgtgt ctgagtcag cacgtttgca 1620
ccattgtctc atttcgtca gccaaattgg tggctgccac actgggcgcc atcttgaacc 1680
gcctgcgtga taacaagggc acaccaggc tgcggaccac ggttggtgtc gacggatctc 1740
tttacaagac gcaccacag tattcccggc gtttccacaa gactctaagg cgcttggtgc 1800
cagactccga tgtgcgcttc ctctctcgg agagtggcag cggcaagggg gctgccatgg 1860
tgacggcggg ggcctaccgc ttggccgagc agcaccggca gatagaggag accctggctc 1920
atttccacct caccaaggac atgctgctgg aggtgaagaa gaggatgcgg gccgagatgg 1980
agctggggct gaggaagcag acgcacaaca atgccgtggt taagatgctg ccctccttcg 2040
tccggagaac tcccacggg accgagaatg gtgacttctt ggccctggat cttggaggaa 2100
ccaatttccg tgtgctgctg gtgaaaatcc gtagtgggaa aaagagaacg gtggaaatgc 2160
acaacaagat ctacgccatt cctattgaaa tcatgcaggg cactggggaa gagctgtttg 2220
atcacattgt ctctgcac tctgacttct tggactacat ggggatcaaa ggccccagga 2280
tgctcttggg cttcacgttc tcatttccct gccagcagac gactctggac gcgggaatct 2340
tgatcacgtg gacaaagggt tttaaggcaa cagactgcgt gggccacgat gtagtcacct 2400
tactaaggga tgcgataaaa aggagagagg aatttgacct ggacgtggtg gctgtggtca 2460
acgacacagt gggcaccatg atgacctgtg cttatgggga gccacactgt gaggttggac 2520
tcattgttgg gaccggcagc aatgcctgct acatggagga gatgaagaac gtggagatgg 2580

tggaggggga ccaggggcag atgtgcatca acatggagtg gggggccttt ggggacaacg 2640
ggtgtctgga tgatatcagg acacactacg acagactggg ggacgaatat tccctaaatg 2700
ctgggaaaca aaggtatgag aagatgatca gtggtatgta cctgggtgaa atcgtccgca 2760
acatcttaat cgacttcacc aagaagggat tcctcttccg agggcagatc tctgagacgc 2820
tgaagacccg gggcatcttt gagaccaagt ttctctctca gatcgagagt gaccgattag 2880
cactgctcca ggtccgggct atcctccagc agctaggtct gaatagcacc tgcgatgaca 2940
gtatcctcgt caagacagtg tgcgggggtgg tgtccaggag ggccgcacag ctgtgtggcg 3000
caggcatggc tgcggttgtg gataagatcc gcgagaacag aggactggac cgtctgaatg 3060
tgactgtggg agtggacggg acactctaca agcttcatcc acacttctcc agaatcatgc 3120
accagacggg gaaggaaactg tcacaaaaat gtaacgtgtc cttcctcctg tctgaggatg 3180
gcagcggcaa gggggccgcc ctcatcacgg ccgtgggcgt gcggttacgc acagaggcaa 3240
gcagctaaga gtccgggatc cccagcctac tgccctcca gcacttctct cttcaagcgg 3300
cgaccccccta cctcccagc gagttgcgt gggagacgct ggccgaggg cctgccggcg 3360
cggggaggaa agcaaaatcc aactaatggt atatattgta gggtagagaa tagagcgtgt 3420
gctgttgata atatctctca cccggatccc tctcacttg ccctgccact ttgcatgggt 3480
tgattttgac ctggtcccc acgtgtgaag tgtagtggca tccatttcta atgtatgcat 3540
tcatccaaca gagttattta ttggctggag atggaaaatc acaccacctg acaggccttc 3600
tgggcctcca aagcccatcc ttgggggttc cctccctgt gtgaaatgta ttatcaccag 3660
cagacactgc cgggcctccc tcccgggggc actgcctgaa ggcgagtgtg ggcatagcat 3720
tagctgcttc ctcccctcct ggcaccact gtggcctggc atcgcatcgt ggtgtgtcaa 3780
tgccacaaaa tcgtgtgtcc gtggaaccag tcctagccgc gtgtgacagt cttgcattct 3840
gtttgtctcg tggggggagg tggacagtcc tgcggaaatg tgtcttgtct ccatttgat 3900
aaaaggaacc aaccaaaaa caatgccatc actggaattt cccaccgctt tgtgagccgt 3960
gtcgtatgac ctagtaaact ttgtaccaat tc 3992

<210> 1496

<211> 3451

<212> DNA

<213> Homo sapiens

<400> 1496

atgatgttca	gggtgccccg	gtctcacccc	gggagcctcc	tcgctccggc	ctgctcctgg	60	
ctacccgggtg	ggcggctctg	gccccagcga	cccgtacttg	tttctccatg	cgctgccact	120	
tcgcaaaggc	acatctctag	gtcagtggtc	agctgcagcc	agggcgctgc	aactcgctcc	180	
aggactcggg	aatcagggcc	ttggtgggcc	tcgcagagtg	ctgggtgtgt	cgcctgcggg	240	
ctcctctttt	ggagaaagga	gggagggaaa	ggccttgtga	gacgactcca	ggagcgacca	300	
gcgaccccc	caaggcccaa	gtcctccag	cgcactcaga	aacagtcact	taaatggcaa	360	
taaggttgag	aaagactctc	ccgtgcccc	gtgctgggtg	agtggctgtg	attcagtcct	420	
ttcaccaccg	catcccgggt	tcgattaccg	gtcagggagt	tgttttgac	tgactgccca	480	
cccgagtaa	tctttcttta	ctccgtgtg	agccggcctg	ctccaagagc	cagaggcaga	540	
agagtctccc	tgcaaggtgc	aaaccctggc	gaaggagggc	aagtcctggg	ggacggcctc	600	
tcatgacaca	ccctcttatt	tatctccgtg	tccaccattc	gcagaagggg	ctttagagag	660	
cgactgagcg	tctcgtcag	gtgtacacca	ccgtgcagag	atggcagctc	tcctggaggt	720	
gtacccaaga	agcccacat	ctttgccgcc	tccgccatcc	cagaggcgcc	gattgggctg	780	
agctgcaa	aatagaga	gagagaggcc	aagccaagtc	gtggcgtttg	tgtgcggcac	840	
acgtcgtcag	ctgacacagg	cggtcagctg	agcctcctca	cctcagttcg	cagcta	900	
gcttcttagg	ccttcggaag	aggcgacagg	aggcgatggc	cgcgaggttg	ggaggggggt	960	
gagcggcg	ggg	tgaggtcctc	caggaccgcc	catttattga	ctgggtggta	caggagggcg	1020
atgttcgctt	acccaacaac	gacagcaggt	ggagtaggca	cta	atggaaa	actgtggccg	1080
gtgccctaag	cagaaggcag	gtgtaaaaat	cactaggaca	tcaaagggat	agtaccacag	1140	
tcaa	atccccg	caatgtctgt	ctacactcta	ccaagcaatt	gtgcaccctc	ccccttttcc	1200
attcagtact	ccaagaagg	gttgggacga	accctgtgtc	cactgtaaag	ctcaggggag	1260	
agcgggagcg	agggaggtga	agtgcacaga	ctgggcagag	gcggcgggca	gaactgcggg	1320	
ggtgagaggg	cgcggtggct	gcggggcg	ggg	agcctctgct	gaaaggaggc	ctgggttgct	1380
ctgtgggtga	ctgttggtgg	aatctttggc	agcgagtggg	tggaagaatg	gcgacggg	cgcg	1440
agcagagggg	aaggtgggtga	ccctgagcgt	ctggctaggg	gagaggaggc	tgtactgaca	1500	
ctcgtctcct	cttacctggc	gagggacaga	ccgtgggtcaa	gaagggagct	ctccctggtt	1560	

gaggctagtc caccacactc cagctgctct gacccctgcg atttcctac acgcggggcg 1620
cttgtctgcg gtggtgtttg cgctaccggg gggctgggtt cacgcaggct cctgacagtc 1680
cttggctcac cgccccgac gcggatatcg ccgctagaga cccttccgcc accctcctag 1740
ggatcttgag ggccttcctt gttgttccga ctgaagctca cgaacagaca gatgtgagct 1800
ctctgtcttt tacacgttga atttggctat tggcaaaaaa agccctgacc cagagcttgg 1860
gactcctccc ggcctgcaca cgacttcccg actcttgccct cctagcgcgg ctcttggcta 1920
gcgggcgggc agcctccacc cagcgtagaa ccgcggcagc cgcagcccc gcaggctggc 1980
ggtcagacac tagcaggaaa agggacacaa ggcctgcgtg gtgggaaagc atgggagacg 2040
tcgctttccc accaggcgag aaggtctccc tacagtcttt ggacagaaga tggagggagg 2100
cacccttcc aggagcaagg cggtgctcc tgaggcctgg ctccgcacgg aggctcctgg 2160
gtcccgcgcg ccctctccct accggttata gccagagctg cttcacacat ctcagccggc 2220
ttctcttcc gcctctgcca cctcttctc cccagctcgt gggaaagacc tagcctctc 2280
tccaacactt ggagagggag ttggatgaac gtctcctaac cccagtagga cagagatcct 2340
gaggtaggag gggaccctt gccttgctgc ttcttttggc accgctgacc cgggcccagg 2400
actcctcgt cctcctggaa ggcctgggtc gtgtagccca cagaggtggc cacgtgggca 2460
tctccccac tgctcctcat agaaccggag gcattatcct gccgggcca ctcttacc 2520
tgaaagaaac ttgggaaatg ctcccgggga agccggggat ctgggcgctc gaccattcg 2580
gtgtgaatct tccgtccgt catccttct tccgaggggtc ttggggagag gagaaatgct 2640
caaggacgat gcgctttgca gcgtctcaag ggaaactaga tctcaacgga taccagaagt 2700
ctggagcgtc ttcttgagg aaggcggccc gaggcctgcg gttgcaggga ggcttgcgga 2760
gcacagcgcc ctctctcagc ctgagctatc cagtggcttc cagcatcca gctggccgac 2820
tccacttct ctctcttct cctactgcgg gtcttcttct tctcttggg gaccgaatct 2880
cgctctgtcg cccaggctgg agtgcagtgg cgcgatctcg gcttactgca acctccgct 2940
cccgggttga agcgattctc ctgcctcagc ctcccgaata gctgggacta caggcgcgtg 3000
ccaccacgcc cggctaattt tttgtatttt tagttgagac ggggtttcac cctgttagcc 3060
aggatggctc cgatctcctg gcctcttgat ccgccgcct cggcctcca aagtgtctggg 3120
attacaggcg tgagcctccg cgcccgccct actgcggctc ttctatcctg gtgttctttg 3180
aatgcctatc ttcttttgt gccacagaac ctctcacgcc cgccacaggt tgctcatttc 3240
cttggttgtt ctgaacttta aataagttaa tgtatgtaag agtgccataa atgctcagta 3300

attgacatct gttattttca tcagtaacat catctgaatc atctgtattg tctattttta 3360
acaactgcat ttttcattgt ccaaataaag tcacatacat ttgaacatta tataatgatt 3420
gaataataaa attattctgc tattttacaa t 3451

<210> 1497

<211> 3743

<212> DNA

<213> Homo sapiens

<400> 1497

gtgcctcccc aggagcctgg atggaggatga ggctgctgaa cggcacagga atgtgctcag 60
gccgtgtgga agttctcgtc cagggcacgt gggggaccgt gtgtgatgat ctctgggacc 120
tggctgaggc cactgtcgtg tgccgccagc tgcagtgtgg ccaggctgtg gcagccccca 180
caggggcccc ctttcgggca ggctctggga agatcttact ggatgacatg cagtgtgtgg 240
gcagtgagag ccatctgggt caatgcatgc gtggggacca ggccaggcac aactgtgggc 300
acctggagga tgccagtgtc atctgcacag gtgctggcaa ttcaccaggc ctcgctccaa 360
ccacagagcc tgaagctgtc acttcatcat acacaccatc agactggagt gcagcagcgt 420
gaactcagct cactgcaacc tctgcctccc gggttcaagc agttctcttg cttcagcctc 480
ccgagcagct gggactacag gtcaagcact gttattagct gtgcccacca caaagcctgc 540
tgtgcttccc tcaaccccct ttccaacagg tgatggatta tctgcaacca tagccacgac 600
agccatgacc ctgccatcca cacccatgcc cccagcaggc gccaaagtctt caatcacttc 660
tccaacagct cctgagtcac ttgctgctcc tggggcaaca aaaccacaa tttatgggtgc 720
tgattccaca gctgctctgc ctacagccca tgagaacctg ctccccacat cattgggtgat 780
atcagtggct caacacccac cgtcttctgc accaccagaa aaatctcggc gtgggtggcat 840
tattaccaac tcactctggg cgattaggaa tccccacag aatgaaatgc atgacaacat 900
cacttggtgtg tgggaaatca aggcaaatgc atctgatcat atactgctgg catttccaca 960
tcttgacctt gactgcacca atgaatatct tgaaatcctg gacgggccac catcctcagt 1020
aaagtcattg gggaggacct gctctggctt ccaacacacc tacatctcct cctccagctc 1080

aatgaccctc gtgtatttcc gaagcttcaa caacctagga taaaacttca ttgcttatta 1140
ttactctgca cccaaagagg cagtgttgca gacccacat ctaatcacca tcccgacagc 1200
aacacccaga acagtaacag caagagcagg ggactggctg gagctgcagc tgggtgggtgg 1260
ctctggccgg tgctcaggac gcgtggagat tctccaccag ggcgctggg gcaccgtgtg 1320
tgatgacctg tgggacctga acgaagctga ggttgtgtgc cggcagcttc ggtgtggtcg 1380
agccatgtct gcccttggaaggccactt tggccccggc tcaggagaca tcttcctgga 1440
caacctccag tgcgctgggtg tggagcgcta cctgggccag tgcacccact cgggctggtc 1500
agagcacaac tggccaccac gaggatgcca gtgtcatctg ctccagatgct gaagaatcac 1560
ttgctaacag tccagagggc tggccggagc tgaggctgat gggcggtca ggccggtgt 1620
tggggcgctg ggagattctc caccagggtg cctggggcac cgtgtgcgac gacctgtggg 1680
acctgaatga agccaaggtt gtgtgccggc agttgggggtt tgggcaggct gtttctggcc 1740
ctggcgaggc ccactttggc ccaggctcag gagacatctt cctggacaac ctccagtga 1800
ctcgggtaga gcactacctg ggccagtgtg cccacttggg ctggtcagag cacaactgtg 1860
gccaccacga ggatgccagt gtcactgtct cagatgcgga agacctacct ccaccacac 1920
ctccagattc ttctacagct tctcaggatc acataaaagg aggaagtaac tcttgtggag 1980
gggtcatttc tagtctctct gggtcatttt ctagtcaca gtatccagaa aactaccaa 2040
cagatatcca gtgtgtttgg gagatccaca tgggtgcaaa atttcacata gaactcataa 2100
ttccaagttt gaaggttata cagtccaaag atagacgtct ttgtcatctc cattagagat 2160
gaggagtctg aggctcagag aggataacta atttgcccaa ggccaacca tctagatctg 2220
tctgatgtca atgaccatc tgttcacaa tatgtgggtc tgtaaaagag tctgcatgaa 2280
gcccttcttc ttgtgcatga cacacatcgt gttacaaaca cagcaagact gtagaattcc 2340
atgatcatta gctccaggca tgcactgaat tgcgttccat catgactgta ccacaacct 2400
ggattcagac atgcactaag caaaaaatgc ctccaggatat atttgttgac taaaacttta 2460
gggacacaat tagccacaat gaggttggaa gatatccttg gatgtcccta tgactccgtt 2520
gaaatcttca atggtcccag gattgcctcg ctctccatgg ggaagtcttg tgcccctgaa 2580
actgtgatat tcttctctc ctccacatc atgacagtgg tgttccaaag tgattctatg 2640
aaaaccaaca ctggctttta tgatcttttc aatgccattc ctccagggtga aaggaggatca 2700
gatgctgggg actgggctcc agatgtgatt cctccacccc cagatatcat tctccagcc 2760
cctataccac aaggaggaag taactcttgt ggaggagtga tttcaagtct ctccaggttc 2820

ttctccagcc cttggtaccc tacaaactac cccaccaact tggagtgcgt ctgggtgata 2880
 cacgtggctg agaaattcca catagaactg atgatcccaa gcctgaagcc ctggactaga 2940
 atcagactca tagtgccaac caagaaagat gagatctcta ccctcacaga gtttatattc 3000
 tagatgatga gacaaatggt actcagataa accaatgact caatggacaa tttcaactag 3060
 tgataaatg aaaaatgcta tgaagaaaaa aatatacata catgataata ggatagaaaa 3120
 taaagaagga gaagacagca acagattaga ggacatctat ggggtgtcctt acgactttat 3180
 cgaagtgttc gatggacaac aggctgcctc actctccatg ggcagggtttt gtgctgggac 3240
 agagctcacg ttccttttctt cttcaaacat catgaccaca gtgttcagaa gcaacgccat 3300
 gatcaccaac acagggtttt atgctctgta caacaccgtt cagcaagatg aaaggagaa 3360
 cggcttagga gaactgaaga gagatgagct acccacacct tctatgtctt ccaactgcctc 3420
 tctgccttac ctaggagcat ctgctgctgt gagttacca acctcagggtg cagtgactca 3480
 cgcctgtaat cccagcactt tcggaagctg aggtggactg atcacctgag gtcaggagtt 3540
 tgagaccagc ctggccaaca tggtgaaacc ccgtctctac taaaataca aaaattagct 3600
 gggcttgggtg gggcatgtct gtaatcccag ctactcagga ggctgaggca ggaaaattgc 3660
 ttgaacccgg gagatggagg ttgcagtgag ctgagatcat gccactgcac tccagcctga 3720
 gcagcagagc aagatttcat ctc 3743

<210> 1498

<211> 5072

<212> DNA

<213> Homo sapiens

<400> 1498

agttgcctta ggaagccatg ctattcaaac catggagaat atcctctgtt ttctaaacag 60
 ctatactgag acagggctta gccctgactc acctgtttg gatggatatt gaccacaact 120
 gcatctactt gagtgggttg gggttgttta tgctgtactt tttctatgtg gtattgatgc 180
 tgtgtttgtc aacccttggg aaaaataatg atatccaaaa gcatcagggc agagccagga 240
 ggagaaagaa aggtgggaca tataaaggta atgtcgacct gctctatctg agcttcaggg 300

tgacccttcc tgtctctttc atgaggactc agtcccatga cttcttagaa tgtcagttac 360
tagatacagt ctcagaaaac agagccctca gaagacaggc tcatgggaaa gcgataagac 420
ctgagacacc gctcagaggc cctgctctgc ccatccatgg gcaagactta gtgatggacc 480
tgagcaatag gcagccaagt tagatatcga ggaaggacta ctgggtgact tggagtcaga 540
gcttctgtct cacaactttg cataagtaat ttgacttcct tgatgctcgg attcctcctg 600
gaggtaacca ctgatgtcta tgtttcacgt ggtgggtttg agcatcacat ggggtaatgt 660
atgtgaaagg actttactaa tgatgccaca tacacatgtg aacttgtgaa tattatcaat 720
gactatttgc ccttttctac tgattcttgg gactatcaga gtttaatatc ccaagggtct 780
tccacagagt gacttctgta tgagccatgt gcctctacct tcattgcata taacatactg 840
ttctgctttc ccagaccgga aaagtttcca gagagaagcc gaagaggaaa ggaagttgct 900
ttctattctg aaaagctttg gacctcctgc ttcttgcagt cccctgggtc agcatcatga 960
taccacccgc tttcgtcgac tgttatgccc agaccccgtc tgtcaggtgt gtaacagagc 1020
cactgctgat atccagcgac tgctgtcttg ggagtccttg aaagatgctg ttccctttgt 1080
gtccccccttg gcttcttcag cttctgcgac tgagtcatca ttcactctgg cttccacccc 1140
ctcagcaacc actccagaag acctaataat gtccccgcag cctaagcctt ctctactgcc 1200
ccacttaatt ctctcccctg acctgatcac caccttagct gacttatatt caccctctcc 1260
ccttttccca ccgcatcaca ttcagagagc ggagcccagt ctccaacctg aggccagttt 1320
gtctctgaac actgtctttt tatttgactc caccctatcc caagatatga accccttacc 1380
aaatatttcc caggccatga atgccactga ttcattgtgct tggcatcacg aaccaccaaa 1440
cccatctgct ttaccactgg aggactgccc tgtaactcag tctaaagcaa gtcccacagt 1500
attgaagcct tttccggaga tgttatctct aggtagtctt ggtggatcat ccacatgtgc 1560
ccaacaatc agaggcattg acattcatgc cctgcatctt cagaattctc ctgggtggcag 1620
cctcatgaca aggacttttt tccttccact attgcaccat atgatttcat gcaagagctt 1680
cttacccttc attcttctga gatcactata ggagggcact ctgtgggtcaa cctcacagag 1740
cctattaacc tctcatttat cagtcatgac attctggcac tcctggagag acaagtcaaa 1800
aaaaggagtg atttctgat gtggaaagag aatgaaaata aagcagaatc ttttccaaaa 1860
caacgtaggc caaactatca actaaattct tcacagaaaa tgtagcctc aattgcagat 1920
aagcaagact tggcaacctc ccttcctttt tggggccagt aaagacagac tagaacaact 1980
gcacatccat cagcagcccc catattctaa gtgttttgag gaccatttgg agcaaaaaata 2040

tgtccagctc ttctggggtc tcccatcttt gcacaacccc aggatgaggc acggctctctt 2100
atgccatctg aaattaatca tctggagtag aacgtgttgc agaaagtgca ggaaagtgtg 2160
tggagtttac cctctgtggt tcaaaaatcc caggaagact tttgtcctcc agctcccaat 2220
gctgtattgg tcagaaagtc tttcaaggtc catgttccca tctccatcat tcctggagat 2280
tttccactca gctctgaggt aaggaagaaa ctagagcaac acattcgaaa gaggctcatc 2340
cagcgcagat ggggcctgcc ccgcagaatc catgagtctc tgtcattgct acgtcctcag 2400
agcaaaatth cagagctatc tgtgtcagac agcattcatg gaccgttaaa tatctctttg 2460
gttgagggtc agaggtgcaa tgtttctaaag aagtccgcat caagcttccc tagaagcttc 2520
cacgagagga gctcaaatat gctttccatg gagaatgtgg ggaattatca gggatacagc 2580
caggagactg ccccaaaaga tcacctattg catgatccag agacatcttc agacgaggat 2640
ctgaggtcta actctgagag agacctagaa actcatatga tgcattctgtc agggaatgac 2700
tcaggggtga gactaggtca gaaacaactt gaaaatgccc tgacagtacg tttgagcaag 2760
aaatttgaga aatcaatga gggtcgaatg cctgggactg tgcatagttc atggcactca 2820
gtcaagcaga caatgtctct tcctgagaaa tcccaaagcc aaattaaaca tcaaaatctg 2880
gtagcattgg tgagtgagga ccaactgcgtt gatacttccc aggagatttc cttccttagt 2940
tccaacaaac aaaagatgtt ggaagcccat attaaaactt tccgtatgag gatgctgtgg 3000
ggccttccct gcaaggtcct tgaatccata gaaatcttca aatcggaaga ggatatttcc 3060
aatccttttt ccattttcta ctttccctcc tcagccagct ttattttctca gggagatttc 3120
aaagatgggg tctctaagtc ttgtagacga agcacttttc aaggagaaaa gttgggaaca 3180
acaagctcag tccctgtcct taatcatcct cagcctgtct cctcacctat tggcaaagaa 3240
gggcagggga ccctgagaag acaattttct gatattgacc atgaccttat agagacagat 3300
gccaaagatg gtgcctccac gccccttaga agaggcacta catattttca aggagaaaaa 3360
ttagaaacaa caagctcatt ctccatcttg ggatcatctc acctcgtcac ctcacctgtt 3420
gatcaagaaa agcagggggac cctcagaaga gaattcgctg atactgacga ggatcttaca 3480
gaaagtgtct ggacaactga ggatggcaga cagacttttc tgccccccac atacagcatc 3540
atagacgaag tcagtcagaa acagactgta cttgccagta gatgcagtgc agagctgccc 3600
atactgcaag ctggagttag ccgtgattca agggataaga gagagagtgc cagtaataat 3660
gttaacaggc ttcagggcag tggaaagacc tttcctgtca ccaatgggtc gaaggagatg 3720
ttcaaggaag aggagatctg tactcttcaa tcacaaacta ggaacaactt gacaaccagc 3780

aagtcaggaa gctgcttagt gacaaacgtg aaaagaagca cttctcatga aactgaaatt 3840
ttcccaccaa gaatatcagt tcctcaaact cctaaatcat catactctaa aaatcagatg 3900
ttgagccagt taaagttggt ccagaggaag catagccaac ctcagagcca tttcactggc 3960
atgtctcttg ccttagataa cttgagttcc aaggacttac tgactcatgc ccagggcatc 4020
tcgaatcagg acttgggaac ttcccagggtg ctgcatgtcc acttggaggt cagaggaatc 4080
cgtgtggcac agcagcagga gcacagggtc cctacgcatg tcttacagaa atgccaagtt 4140
aagaattttt caccagctgc aaagagagtg agccctttaa gacccaatgg aggagagctt 4200
ggtggagggg atgcagggtt ggggacatcc caactcacta gaaagagcct ccctgttcat 4260
aacaaggcat caggagaggt gcctgggagc aaatcttccc caaccttgaa aacacagcct 4320
ccttctgaaa accttttcag aaaatggatg cagaccttat tgcagtgggt taataaacct 4380
agcataatgt gtgaagaaca agaaagtctt tgggaaaagg gtagctccct gtcacatct 4440
gtgcagaata gaagtcgagt tacaagtaga gctgctttta ctggtgctac tgaagctcag 4500
aaaattagga aagacactgg ggagttccta gaagaaaagc tggggcatag ccatgggata 4560
gatatacct gtccctaaga acccttttcc ttcccagtgg agcttgggaa agctcagcac 4620
aaccagaag tgcaggtcag agcagagcct ttccagggt atccccgcaa ctacacagct 4680
ccctcccgca aagtgcacatg taccaaactt tgcagccaac aagctatctt tgttggacag 4740
aattatccta caaggattag acagatcata gacaaggaca gacagcccca ggaagttgag 4800
gcatttaagg ggaagatatt gtatcaaagg catccccaat ccatgccccca cagggtcct 4860
gtgccacatc taaacccac ttgtcagcgt caagtcaccc tgggtgtgtcc agctgtccca 4920
attagtggca aaagcactgt gttcagtgat gtgcctttac taactggacg caaatgcat 4980
tggaagtatt tgcagggagg caaatctccc cccacaaaat aattcactac ttgttgagaa 5040
tcttgattct ccctaataaa tgttctaata ag 5072

<210> 1499

<211> 3957

<212> DNA

<213> Homo sapiens

<400> 1499

agctggccgg	gcgggggggc	tgaccccccc	atctccctcc	cagacggggt	ggctggccgg	60
gctgaggggc	tcctcacttc	ccagtagggg	ggggcgggca	gaggcgcccc	tcacctctg	120
gacggggcgg	ctggccgggc	agggggctga	ccccccacc	tccctcccgg	acggcatggc	180
tggccaggcg	gggggctgac	ccccacctc	cctcccggat	ggggcggctg	gccgggcgga	240
gggctaacct	ccccacctc	cctcccggac	gggggtggctg	ctgggcggag	acgctcctca	300
cttcccagat	gggggtggctg	ccgggcggag	aggctcctca	cttctcagac	ggggcggctg	360
ccgggcggag	gggctcctca	cttctcagac	gggggtggtt	ccaggcagag	ggtctcctca	420
cttctcagac	ggggcggccg	ggcagagacg	ctcctcacct	cccagacggg	gtctcggccg	480
ggcagaggcg	ctcctcacat	cccagatggg	gcggcggggc	agaggcgctc	cccacatctc	540
agacgatggg	cggccgggca	gagacgctcc	tcacttccta	gatgtgatgg	cggctgggaa	600
gaggcgctcc	tcacttccta	gatgggatgg	cggccgggcg	gagacgctcc	tcactttcca	660
gactgggcag	ccaggcagag	gggctcctca	catcccagac	gatgggtggc	caggcggaga	720
cactcctcac	ttcccagacg	gggtggcggc	cgggcagagg	ctgcaatctc	ggcactttgg	780
gaggccaagg	gtctgacagt	ttgattttta	aaggccaaat	ctctccagac	tccaaagaac	840
tctgtagcca	aacagcagca	catactaate	aggcctgcct	gtccttagag	cagcagcata	900
gaagcctgga	gacatggact	tccatcccat	attcacattc	aacagcaaaa	taaatccaaa	960
tataaggcag	tgctacaatt	caaagactgt	ctgagatcag	atgagattgg	gcatgttcag	1020
cgtgatacgg	gtagagatgt	tccctcactc	cactggccca	cagccacatg	cagaccaacc	1080
ctgaagaata	cacccaagcg	gtctgcactc	agatcaaacc	ctgatctccc	acaactacat	1140
caacacacaa	acaaccacca	gaatacaatc	taactgctgc	aacaataagc	aagtcccaag	1200
agagtccaaa	ctgaaacagt	tgagttgctt	tctccctggt	tgttgggcta	gttcaatctg	1260
caaattggaga	ttccttcgga	atttctcaaa	ttgagaaaag	cagatcctgc	tgtctggacc	1320
cacaaatgac	actcacttat	ccagacacat	actcaattac	taacaagccc	caagagtgtc	1380
tgaactggaa	cagtcagggt	gcttcctctc	tccgtcagtt	ggccttgctg	aacttgccaa	1440
tggaaattcc	ttcagaattt	ctcaaattga	gaggagccat	tcccactgtc	ggtatccaca	1500
aaagacactc	acatatccac	atgcagaagt	caaatttgaa	aggctgttct	tcctaggcaa	1560
tcagaaatgt	ggttggggct	ggcagcagca	atgctaaata	gaaagactaa	aaccacatc	1620
ctgcctaaaa	cacataggct	gctgcttagg	gttgcggaaa	ttctcccaac	tggtgacagc	1680

caagccaaga gcaatgtctt cctgatgagg gaacccaaat ctgttactga aatgccagag 1740
gttcagccta ggtcccgtta ctcatcgcac agaatgccaa tcatcagggc aagtatttcc 1800
aggggagatg actttattca gttgctgcag ctgagaagaa ctgcagatca gtctcaaatt 1860
catctcccca agtgactgaa attgggggtt tacatagcag aggagggatg tagctacgtg 1920
caggaaataa tntagctatg tgtgggaaaa cagaatttga atttcagggc aacaggagat 1980
ttgatgggga atgaacaccc cacagctctg tgcaggagtg cctggaagtg aggccagtca 2040
agggaatgct gccagacaac caactcagct tcagaccatc ttcagatcgt aaccaccag 2100
ggactgtggg ctttgccaga ccacattttt gggttactgca actcaagttg gcttctaaat 2160
ctcaaaaaat gtgacaatga tacagatttt tttatctact tttgtctaaa acattttaa 2220
actcattctg aagtaactca tctcaaaatc caatgctaga aaaatggaaa taattacagg 2280
cagatgcaat gatttaaagg tttaaaagaa gctgtccatt ctaaagagtc agaggaaacc 2340
tttccttatg aaatgggtta tgaaataaat agggaaaaaa aatccaacac aatcacgagg 2400
ttccagaaaa cattgtatat ttatttaaaa agtaattttg tatgaatgaa atatttctta 2460
aggttctgcc tttctttcct tccactcaac aggaacaaaa attactggat ttatgggtcaa 2520
ggaaaatcac taaccacag ccctcagatg cactcatgaa aatgggaaga atgcatacac 2580
agggatcaga gaacagagaa acaggtgaat cttgtggttg gaaagaaacg cacttttgta 2640
tgtacacaca gaattaactt tactttttcca ctaagctctc tctgagactt agaaatccct 2700
acatctgggt aggctggagt caatcccaag gcttttatgg ttccttgaag taaaaagagc 2760
agtctcatgt cagaaattaa taggtccagt ctagcacagt attgaaactc caaacttcaa 2820
tttaaactct acttgaagc ctgcagaaga ggaggcaggc ggttttgctg cctctttttt 2880
tccctagcat catcaaatcc tctattcatt ggctgctgtt tcttaacat ttcatgggaa 2940
agagaaatag aagcacagat atctgctgtt aatggttctt tctcttacca agtgctgttg 3000
ggggtttttc agaagtcaca tcatatgact gaaacttacc tcctgtctga tttctctca 3060
acttttggga ttctacagat tctcaccatt aggatttcag tgtctggcag tcctctggga 3120
aactactttt taaaaattat ggtaaaatac acataacaaa atttttcatc ttaaccattt 3180
ttaagtgtaa atttcagtag taagtacatt acattgtttt gcaatcaatc tccagaacta 3240
ttttcatctt gcaaagctaa aactctgtat ctgtcaaaca atgactcccc atttcctctt 3300
tccccatca cttagccacc accattctac tttctgtttc tatcagctta agtcttctaa 3360
gtaactcatg taagtgaat catacagtac ttgtcctttt gcgactggct tattccgcat 3420

agcataaagc cttcaatggt tatttatggt gtagcttggt tcagaatgtc cttccttttt 3480
aaagctgaat aatattccat tgtatgtata taccacattt ttttagtcca cccatcgatg 3540
gacaccaggg ttgctttaac ctgttgactt gtgaataacg ctgctatgaa tatggctgta 3600
taaattctctt ggagataacc tgctttaatt attttggtta tatatccaga agcaaaagtg 3660
ccaggttata atttaagtgt taatttggcg gggggaacca ccatattgtt gtctgtagtgt 3720
gttgcatat tttacattgc catgaaaatt tcactagggt tgcaatttac ccatatccct 3780
atagtatttg ttattttctg ggtttttttt ttccacagga gccatcttaa tggatgtgag 3840
gtgatctctt aatatagttt tgattttaat ttctcaaatg attagtata ttgaatgtct 3900
tttcatatgt ttgctggaca ttgttttatg ttttatgaag aagtatctat tcaagtc 3957

<210> 1500

<211> 3176

<212> DNA

<213> Homo sapiens

<400> 1500

aactcgggtt cactgcact gctggccaga cgagggtatg tattttgggc agtgcattctg 60
gacttgggtt aagtggcacc agccaaatcc ctgccttact gacctctccc ctggaggagc 120
aggagcagtg ctcaaggccg ccctgggagg gctgagaggc aggctctgga ctggggacac 180
agggatagct gagccccagc tgggggtgga agctgagcca gggacagtca cagaggaaca 240
agatcaagat gcgctttaac tgagaagccc ccaaggcaga ggctgagaat cagaagacat 300
ttcagcagac atctacaaat ctgaaggaca aaacatggtt caagcatctg ggcacaggcg 360
gtccacccgt ggctccaaa tggtctcctg gtccgtgata gcaaagatcc aggaaatatg 420
gtgcgaggaa gatgagagga agatggcgcg agagtctctg gccgagttca tgagcacata 480
tgtcatgatg gattggctga ccgggatgct ccagctgtgt ctcttcgcca tcgtggacca 540
ggagaacaac ccagcactgc caggaacaca cgcactggtg ataggcatcc tcgtggtcat 600
catcagggtg taccatggca tgaacacagg atatgccatc aatccgtccc gggacctgcc 660
ccccccgcat cttcaccttc attgctgggt ggggcaaact ggtcttcagg tactgccctt 720

gcccaggccc attcctttga gattttctgt ggggcccctg tgtgttgagg tgtggggggt 780
gatgtgaggg gcagcacagg agggctcctgc agagccccc ggtggcctgg ggagcaggag 840
tgagtcccaa catttcccca ggccagtaga gatacagatc ctgcacctgc actgagtgtc 900
aacctgtcc ctgaatcggg ctgaggctga ccagggcccc ggggttggggg tgtttcctgg 960
gttagcctga ggatgactcc tctgctcaac cagtcttggc ccgaggtgga tgagggtgct 1020
gtcctgggca tcagccccct cagccggcct ctgcctcttg cctgcagcga tggggagaac 1080
ttgtgggtggg tgccagtggg ggcaccactt ctgggtgcct ctctaggtgg catcatctac 1140
ctggtcttca ttggctccac catcccacgg gagccccctga aattggagga ctctgtggca 1200
tatgaagacc acgggataac cgtattgccc aagatgggat ctcatgaacc catgatctct 1260
ccccttacc tcactccat gagccctgcc aacagatctt cagtccacc tgccccacc 1320
ttacatgaat ccatggcct agagcacttc taagcagaga ttatttgtga tccatccct 1380
tccccataa agagaagctt gtcccacagc agtaccacca ctccctgggg gcctcctgtg 1440
gttgggcttc cctcctgggt tctttcagga gctctagggc tatgtcttag cccaaggtgt 1500
agaggtgagg cacctcaagt ctttcatgcc ctgggaactg gggtgcccca gggggagaat 1560
ggggaagagc tgacctgcgc cctcagtagg aacaaggtaa gatgaaagaa tgacagaaac 1620
agaatgaggg attttcaggc aagggggaag gaagggcagt tttggtgaaa ggactgtagc 1680
tgactgggtg ggggctggct ttggaaatac tttgagggga tcctgagact ggactctaga 1740
ctctcccctg gttgttcct tcccagatt ctggccggtt cttggaccag acaaggcatg 1800
gccaagaag gtagtcaga attttttagc cttttttca ttagtgcctt ccctagtatt 1860
cttcagatt tttttctta atcacatgaa attttaatac cacagatata ctatacatct 1920
gtttatgttc tgtatatgtt ctgtgcttta tacgtaaaaa agagtaagat ttttttcac 1980
ctcccctttt aagaatcagt tttaattccc ttgagaatgc ttgttataga ttgaaggctg 2040
gtaaggggtt gggctcctct ttcttcttcc tgggtgccaga gtgctccac atgaaggaat 2100
aggaaaggaa gatgcaaaga gggaaatcct tcgaacacat gaaaacacag gaagaggcct 2160
cttagggctc caagggtcc aggggaagcag ctgcagaggt tgggtggggg gaggggcccag 2220
gatccactga ccctggggcc aggcaggaat cactctgttg cctggggctc agaaggcagt 2280
atcacccatg gttcctgtca ttgctcatgt attttgcctt tcaacaatta ttgtgcacct 2340
actgtgtgca ggccctgcct ggacactggg gatgcgcagt ggatgcactg ggctctgcct 2400
ttgagggttg cagttaatg ggtgacaggt aattataagg aagaaggtga gtgcagagtg 2460

ggaggcttgg aggctgtggg gcttgggggtg ggggagctca catccagcct ctgggccaaag 2520
 gccaggaggc ttcccagagc aggagacaga gcagggtatt gtggtggggg gtgtcctttt 2580
 tggggctggg atctgcactt tacagtttga ggggatgggc agaggaggct gggcttcatt 2640
 ctggagggtg ggacatggtg aggtgaggtt tagaaagcac acctgagccg cagtgtgtag 2700
 gatgctggaa atggtggaga tgggcctgca aagagagtgc tgggaagtga tgaccagga 2760
 gcagcagccg ggcacctaac aatgggtcag caccgtgggc gtggagacaa aggccgggat 2820
 tgatcaatac ccgagaagta caatgtacag gacttgggct ccatttggat ggagtgggtg 2880
 agggaggagt cagaaatggc ttccgatttc cagcttgggc ctggggattg gagatgtccc 2940
 cactgagagt agggcacaag tgaggaaatg gtttggagag gaagatgata agttacatca 3000
 tggatgtgct gagtctgagt tgcctatggg acttggaatg gggggtggca aaaggtgtgt 3060
 gatcttgagc aagatattca actcttctgg gccttgggtct tctcatttgt aaaacggtga 3120
 taagaatatt acttccatt tgtgttgctg tgaatattaa atgcgctacc acatgt 3176

<210> 1501

<211> 3678

<212> DNA

<213> Homo sapiens

<400> 1501

agcccacgtt cactattgaa cacaacggaa gggggaatta ttgtgcttct tgctttgatt 60
 cccaagctgg tgttgtctga gcctgtctgg catgtgctct gcctgccctg acttctgacc 120
 ccaggaggag cattcaagga gccaaaggaat ggggtccaggc attgtgctag tatctagcca 180
 tggcaagatg ctagatctaa ccatgacgag agcagctaag atcggactgt acctgagtga 240
 gcccattgaa tcttccacca gcaccacacg gggtttctat tgtttgtctc agctgcagca 300
 acataatatg agacaagggc caagaactgc agaactgtgc acggtgttta gaagaggctg 360
 cgagctgctg ctctgcagag ttgggaggtg ctttcgggct ctgcaggctc cctgcaggcc 420
 cttgctgact gtccatggcc tgcacctgcc ctacctgctg agctgccccca tcagctgctc 480
 ctggctgtgg tttcctgagg ggtcccgtct gcatcggtg ccctgtgtcc tgacactatg 540

gtgggtttgc aagtggcaaa gtccaggga gtagactggg gagcatggcc atgggtcatc 600
cgggggggcac ggagggttcc ggctcccgcc caggctccacc tgcttcatca gcagtgggtca 660
ccaagattgc ataaccagga cgatgacaac gctgagagct ctgttgagc taaagactta 720
agaacaactt gtgcctgctg actaatacat tttatcacc aggagcagtc aggactctga 780
gagcctctca catgctgctg tcatctgagc gagacctcaa gatttgtcat cgagcaggct 840
gacccttgcc tgaatggacc tcacattctt gaggcaggga gagatctgca atcagcatga 900
tcgatcagcg attttcataa gacgttagaa gtcacagag cttaggaaac aggggtgagga 960
agtaggggag gagccggaag ggccccatt taaaacaagg tggccaggat aggcctctct 1020
gtaggggtga cattgaagaa atgggtgggag aggggtgtgag gtgcacatct ctgagggcag 1080
agtgttctgg agacaggaaa ccatctgtgc aaaggccctg tgggtgagagg gtgctaggag 1140
ctagcaagcc cagtctactc aacacagcca tcattttaaa acctcggtga gccctgtccc 1200
ttatcttctg aacccccctc cacagaagcg gatgtcactg agagtgaaag ctgcagtgtg 1260
gggtggcctc ctctgcacac cggccctggc cctctgacct cttctacccc atgatgggtc 1320
cctgtcagct ggggtctagag tggaccgtcg gggcagacct ggaaggggaa ggctgtcaag 1380
ttcctgtccc cctgtgacat acagcaacac atttgtttcc ccctggattc tggggatcag 1440
caacatgtgc ggggtgggggc agggcagctc tgctgtcttg ggatgggctg cccctcagg 1500
gaggactggc cagctgggtg gctctgtctc tggagagtga ccggccattt gctgggtgga 1560
tggggtgact gtcctgagag cttggcacca ccagaagtgt agtccacgca gcccttcaca 1620
gggtggctcag ggtgcccagc ggggcaagag gtggccctca agctaagctt gagcttaagc 1680
ctaagcctaa gcttgccacg cttgggctag gatgccaagt ctccatgctg gctgtgtggtc 1740
acagctctgt ccctgtggga gaagacgact gaagcctggc caggctgggc catctcccca 1800
gcagccacca gggcttgctg tgagatgtgg gagccatgct agggctcctgc cccggggatg 1860
ttggtaggca tgggtgggaag cagtgcatt atggatattt tctggagata atcatcaaca 1920
ggatttgctg atggaatgga cctggaatac aagaagaaaa ggaatcaagg atggctctga 1980
ggttcggggc ttgagcaact tggatggggg tgctgtgag tcagggtggga ggggagcagg 2040
ctcaggggat gcggactcca tttgaagtgg ccgcgttgga gatgtctgtg gacatccacg 2100
tgaaatgctg agtggccagc tggacatgtg gatctgggtg ccagggggaa gtttgggctg 2160
cagatacaga tttcaccagg acatattttt agtgatgcat agactgacca ggctcgaaag 2220
aagcacaggg tgtgcagccc cattctggta agcgtgtctc tgcctttact gaggtgtctc 2280

cactgcatcc ttgatttaat ggaattcaac tgaaccatca ttgagcatct gttgtatacg 2340
atgtactctg gaggcataaa aactattggg agaaatgagg aagtaaataa gtaatattga 2400
tataattctt ctattaataa gaatcaattt atctgaaaac aaaaagtctc ttaagcattt 2460
gaataaaaata gaaagccttt attaacatat gaaaataaat ccatacccat aaataaaaat 2520
ctgcacactc acgggtgctg accagtatat cctagctcac cagcacagtg ggctgggtgt 2580
ggagaagggtg ggcatcagc ttccacatca ggcagaggga gccttggagc ggagggtgct 2640
ggctcaggac tgctggccaa gcccatgggtg gagtcaggcc ggcctgcagt tggacactct 2700
tgactgatta aacattaata ggcaattcta aaaaaaacag agaggatggc aactccatag 2760
gaaggagggc cacatgtggg ggtgaattcc aagtcaaaca ttttcccaa agaatttgtt 2820
gttaaacttt taattttgag ataactgaag attcacatgt agtggtcaga tataatatag 2880
catgatcttc tgtgcctttt acccagtttt ctccgtcata acatctgcaa acgtagcact 2940
atattacagt atctcaacca gtgtataaat gcatacactc accagtgtca ctgggggttc 3000
tccagtctca gttcatttgt gtgcatttat tttccgtaac tgtatcactg ctgtagagta 3060
ggatggccac cttgacagtc aagaggcaga acagctccac acgagggttc ctgtcttctt 3120
tgctcctgga accattaatc tgctctccgt ctctacaatt ttatcctttg agactgttac 3180
ataaacaaaa ccacacagta acctcacaag gcatttttgc actcagtaaa atgcccttga 3240
gaccattca cgttgctgtg tgtatcagag ccggttcctt tccatagctg agccgtgttc 3300
ctgggtgtga cacaccactg tttaatcagt catcgctgaa ggacggctgc cttgtccccc 3360
attttcgacc attacaaatg aagcttccat gagcattcat gtacaagttt ctttgtgaac 3420
ttaagctttc aagaaattaa aaaagaaatg ttttcaaatg cttgagcaaa tagccaagat 3480
cccagggcac cgtgggaaag tgtggaagtg aggatttttt ttttttttt gagatggagc 3540
cttgctctgc actccagcct cgggggtcaag agcgaaactc tgtctcaaac aaaaagaaag 3600
aaaggaagga aggaaggagg gaaggaagga aggaaagaga gaaagaaaag aaagaaagaa 3660
agaaagaaag aaagaaag 3678

<210> 1502

<211> 3823

<212> DNA

<213> Homo sapiens

<400> 1502

ttctgatttc	ttgtaaaaat	atftttgtatg	tgtgaatgca	tactgaatgt	aaagtggata	60
aaaaactcac	acttgactc	atggaaggct	tttcatgaat	ttgtcaattt	ttatttttta	120
tatttcccca	cttcaccaga	taatgcatac	ctgaacctgg	aaactgattc	ccactgcaga	180
aagtgttctg	agccacatcc	cttagcttca	ctagtgcagg	tccacctggg	aggatgtccc	240
agcatcagct	tgacctatgc	tgtgatcagc	cacctccatg	catcacacca	agcaagcccc	300
tgggtgattc	acagtctcca	ccaccagggc	actgacctta	actctgtgtt	tttctagctc	360
cccatgagga	caccgtacac	gacatcacta	acgaggacgc	cacacacgac	atcgctaacg	420
aggatactgt	acacgacatc	gctaacgagg	ccgccgacaa	gggcatcgcc	aacgaggatg	480
ccgcccaggg	catcgccaac	gaggacgccg	cccagggcat	cgccaaggag	gacgccgccc	540
agggcatcgc	caaggaggac	gccgcccagg	gcatcgctaa	cgaggccgcc	gacaagggca	600
ccgccaacga	ggatgccgcc	cacggcaccg	ccaacgagga	cgccgcccac	ggcatcgcca	660
gcgaggacgc	cgcccacgga	atcgccagcg	aggacgccgc	ccacggcatc	gccagcgagg	720
acgccgccc	gggcatcgcc	aacgaggacg	ccgccaggg	catcgccaag	gaggacgccg	780
tccacggcat	cgccaacgag	gacgccgccc	agggcatcgc	caaggaggac	gccgcccagg	840
gcatcgccaa	cgaggacgcc	gcccagggca	tcgccaaaga	ggacgccgcc	caggggcatcg	900
ccaaggagga	cgccgcccag	ggcatcgcca	acgaggggcg	cgcccagggc	atcgccaaag	960
aggacgccgc	ccacggcatc	gccaacgagg	acgccgccc	gggcatcgcc	aacgaggacg	1020
ccgcccacgg	aatcgccagc	gaggacgccg	cccagggcat	cgccaacgag	gacgccgccc	1080
acggaatcgc	cagcgaggac	gccgtccagg	gcatcgacaa	ggaggacgcc	gcccagggca	1140
tcgccaacga	ggacgccgcc	caggggcatcg	ccaaagagga	cgccgcccac	ggcatcgcca	1200
acgagctgta	tacgacatcg	ctaacgagga	caccctacaa	gccgtcgcta	acaagtacac	1260
tgtacacaac	atcgctaattg	agggcactgt	acaagacatc	accaatgagg	gcgctttata	1320
cgacattgct	aatggcaccg	acaaggcacg	ctaactgga	cgctgtacac	gacattgcta	1380
atgaggacag	cgtataagac	atcgctagta	actatcgcaa	gaacaaaaaa	ccaaacaccg	1440
catattctca	ctcatagatg	ggaattgaac	aatgagatca	catggacaca	ggaaggggaa	1500
tatcacactc	tggggactgt	tgtggggttg	ggggggggag	ggatagcatc	gggagatata	1560

cctaattgcta gatgatgagt tagtgggtgc agcgcaccag cacggcacat gtatacatat 1620
gtaactaacc tgcacaatgt gcacatgtac cctaaaactt aaagtatata tatataaaaa 1680
aagacatcgc tagtgagcac gctgtatacg acatcgctaa tgaggacacc atacaaggca 1740
tcgctaacga tgacgctgta cacaacatca ctaatgatga caccgtataa gacatcgcta 1800
attatgacgc tgtatacgac atcgctaattg acaccgtaca aggcacgcta acgaggatgc 1860
tgtacacgac atcactaatg aggacagtgt acaagccatc actaatgagg aactgtata 1920
tggcatcgct aacgaggaca ctgtacaagg cattgctaac gactacgctg tacacaacat 1980
cgctaattgag gacaccatat aagacatcac caatgaggat gctgtatatg acatcgctaa 2040
tggcacccac aaggcatgct aacgaggacg ctgtagacga cattgcttat aaggacaccg 2100
tacaagacat cgctaacgag gacgctgtat acgacatcgc taatgaggac gttgtatatg 2160
acatcgctaa tgaggatgct ttacaagaca tagctaataa ggttgctgta tatgacatcg 2220
ctaattgagga cattgtatat gacatcgcta atgaggacgc tctatacgac atcactaatg 2280
aggacgctgt atacaacatc gctaattgagg acgctgtata tggcatcgct aatgaggatg 2340
ctgtatacga attcgctaatt aaggacgctg tatatgacat tgctaattgag gacactgtac 2400
aagacatctg taaaaaagaa gatgctgcca atgagccatt gacactggag aatgatacgt 2460
accctgaaat aactcacttc ctgaggaaaa agcgccatct ctaggggtaca gaaacctgat 2520
tctgggctcc ttttgggaag gaggatttgg ggtctggtga gagcaaatga ttttgcaagt 2580
ataaaacat gtccagagag gctgtaggga tatctgtgag cccagaggaa acaccagggg 2640
atcctgtgcg aagcaccatg gcttcagcta ggggtgggagg agtgggtggg cctctctcta 2700
atgacttattc ctgggtgtttg tgttttctaaa gatttgattg tggagagcat atctgatgat 2760
ggggatttgt aggtaggtaa ctgctttcca cgtaagatcc aattggagag agttcccagg 2820
ggccttcggg gtatccatgc tgcttgggag gttaaggagagg ggggcatgaa atcaaaacga 2880
aacaggaaat atgtgtcata ttggatttgg tcttttccgg gtttattggc ataattgttg 2940
gaactgtctc tctgggctat gagggtgctg tgttatttaa aggtggtctt tcccagaaca 3000
cctggccttt tcttttctgc ctctgccaaa catcacagcc tttgggttgg attagtcagc 3060
acccttggg attgtgcaga agaggtttgg gggtgcatcg agtgtcacct gtggtgaaca 3120
gaatctgagg gacacaactc tctcacaggc acttctcca acctggagac agagttctcc 3180
tggtgtgtgc ccaggggtgg aggagaaatt gacagtctgc ctctgaactt tcaggacttt 3240
aaaaagcact catgtttcca tctcactgt tgactcctgg cttaaaggga tctcccgggg 3300

tgagtgagga ggcgggatcg gaccctggca gtctgacggc agcacctgtg ttcctctgca 3360
 ctgggccgtg gatgacatta cacaccttgc cactcccacg gtcctgtgtg ttccggatat 3420
 tttaaaataa tggctataag gttgagcact tcaggatacg ctgttttgct gtgtgcagat 3480
 ggaggcagtg gctggagtga atgaacggca acacttgctg gcaaccggca gaagctgaga 3540
 gacagggaac aggctctcct ccagagcctc caggagccag gcctttggac accttgaatg 3600
 tgggcttctg ggagaccatg cgtttctgtt ataagcagcc cagtctctgg cagtttttac 3660
 ggctgccccg gaacactcat ctatacctgt ctgacaaggt caagctccaa ggaagggact 3720
 ctctacatat ctacattgtt tgcagatttt acaataatca tttattcttg catggctgat 3780
 cattgttaac caatacaaat aaaataataa agaaatgacc cac 3823

<210> 1503

<211> 4856

<212> DNA

<213> Homo sapiens

<400> 1503

attcccacgc caggatcgat gtttggcccc agcgtggaat tcacctcggt gctgaagcca 60
 gtctttgctc gtgagaagga acccttctcc ctgtcatgct tgttttcgga agatgtgtta 120
 gatgctgaga gcatccagtg gttccgagat gggagcctac tgaggctctc gagacgtcgg 180
 aagatcctct acacagaccg ccaggcatcc ctgaaggtgt cctgcaccta caaggaggac 240
 gaggggctct acacggtccg ggtgccctcg cccttcggac cccgggaaca gagcacctac 300
 gtgcttgtga gagatgccga ggccgagaac cccggggccc caggctcccc gctgaacgtc 360
 cgatgcctgg atgtgaacag agactgcctc atcctgactt gggccccgcc cagtgcaccc 420
 cggggcaacc ccatcactgc ctacaccatt gagcgggtgcc agggcgagtc tggggaatgg 480
 atcgccctgcc atgaggcccc cggagggact tgtcgggtgcc caatccgagg cctcgtcgaa 540
 ggtcagagct atcggttccg ggtgagagcc atcagcaggg taggcagcag cgtcccctcc 600
 aaggcctcag agttggttgt catgggtgac catgatgcag cccggaggaa gacagagatc 660
 ccctttgatc tgggaaacaa gatcaccatc agcacagacg cttttgaaga tactgtgacc 720

atccccctcac cgccaaccaa tgtccatgcc agcgagatcc gagaggccta tgtggttctg 780
gcctgggagg agccgagccc ccggggcaga gcaccactga cgtactccct ggagaagtca 840
gtcataggta gtggcacctg ggaggccatc agctcggaaa gccctgtgag atccccgaga 900
ttcgccgttc tggacctgga gaaaaagaag tcgtatgtct tcagagtgcg agcaatgaac 960
cagtatggcc tgagcgatcc ctccggagccc agcgagccca tcgccttgcg gggcccgcca 1020
gctaccctcc ctctccagc tcaagttcaa gctttcagag acacacagac ctctgtctcc 1080
ctgacatggg atcctgtgaa agaccagag ctctggggtt attacatcta ctcccgaag 1140
gtggggacat ctgagtggca aacagttaac aacaaacca tccaaggcac caggtttaca 1200
gttcccaggc tgaggacggg gaaggagtac gagttttgtg tcaggtcagt cagcgaggct 1260
ggggtaggcg agagctcagc cgccaccgag cccatcaggg tcaagcaggc tctggctacc 1320
ccgtctgccc catatggctt tgccctcctg aactgcggga agaataaaat ggtcattggg 1380
tggaacccc ccaagcgtcg tggaggtggc aagatcctgg gctacttctt ggaccagcat 1440
gactcggaag agctggactg gcatgcggtc aatcagcagc ccatccccac ccgggtctgc 1500
aaggtcagt accttcatga aggccacttc tatgagttcc gtgcccgggc tgccaactgg 1560
gcaggtgttg gcgagctgtc ggcaccagc agcctgtttg agtgcaaaga gtggacaatg 1620
ccccagccag gcccccgta cgatgtacgg gcatccgagg tgcgggctac atccctgggtg 1680
ctgcagtggg aacccccact gtatatgggg gctgggctgt tcacaggcta tcacgtcagt 1740
ttccaggagg aaggctctga gcagtggag ccggtcaccc caggcccat ctctggcacc 1800
cacctgaggg tttccgactt gcagccagga aagagttacg tgttccaggt acaggccatg 1860
aattcagctg gtctggggca accgtccatg cccactgatc ccgtgctcct ggaggacaag 1920
ccaggtgccc atgagatcga ggttgggtgtg gatgaagagg gctttatcta tttggctttt 1980
gaagcccctg aagccccga ctctcagag tttcagtggc ccaaagacta caaggccca 2040
ctggaccccc agagggtcaa gatcgaggat aaagttaaca agtccaaggt catcctgaaa 2100
gaaccgggc tcgaggattt gggcacctac tcagtcatag tcaactgatgc cgatgaagac 2160
atctccgcaa gccacacgct aaccgaggaa gagctggaga agctgaagaa gctgagtcac 2220
gagatcagaa acccagtgat caaactgatc tccggctgga acattgacat cctggagcga 2280
ggggaggtgc ggctttggct ggaagtagaa aagttatctc cagccgctga gctacatcta 2340
atcttcaaca acaaggagat cttcagctcg ccgaaccgca aaatcaattt tgaccgagag 2400
aagggcctgg tggaagtgat catccagaac ttgtctgagg aggacaaagg gtcgtacacc 2460

gctcaactcc gagatggaaa agccaaaaac cagattacct tgacactggt ggatgacgat 2520
tttgacaagc ttctgaggaa ggcagatgct aagagaaggg actggaagag aaaacagggt 2580
ccctattttg agcggccgtt gcagtggaa gtcacggagg actgccaagt gcagctgacg 2640
tgcaaggtga ccaacaccaa gaaggagact cgctttcagt ggttcttcca gagggcagag 2700
atgccagatg gtcagtatga cccagagacg ggaacgggac ttctctgcat tgaagagttg 2760
tccaaaaagg acaagggaat ttacagagcg atggtttctg acgatcgagg ggaggacgac 2820
accatattgg acctcacggg tgacgccctg gatgccatct tcaccgagtt gggcaggatt 2880
ggtgccctct ctgcaactcc actgaaaatc caggggaccg aggaagggat ccgatcttc 2940
agcaaggtca agtactacaa cgtggagtac atgaaaacca cctggttcca caaagacaaa 3000
cgtctggaga gtggtgatcg gataaggacg ggcaccaccc tggatgagat ctggcttcac 3060
atcctggacc ccaaagactc agacaagggc aaatacactc tggaaatagc tgcagggag 3120
gaagtccggc agctctcaac agatctctca gggcaagctt ttgaggatgc aatggctgaa 3180
caccagagac tgaaaacctt ggccatcatc gagaagaatc gtgccaaagt ggtgagaggt 3240
ctgccggatg tggccactat catggaagat aagaccctgt gcttgacttg catcgtctca 3300
ggagacccca cccctgaaat ctcttggtg aagaatgacc agcctgtcac cttccttgac 3360
cgataccgca tggaagtgag ggggacagag gtcaccatca ccattgagaa ggtcaacagt 3420
gaagacagcg gccgctacgg cgtcttcgtc aagaacaagt atggctccga gacgggccag 3480
gtcaccatca gtgtgttcaa gcacggggac gagcccaagg agctgaagag catgtgacag 3540
cgtgtgtcca ggcacagtct gagtctagtc tgcattggacc agtagggaca acctgtacca 3600
gggtcacagc ctggcacagg ctacaggggt ggggcagaag gaaaggggac aagatagaac 3660
ccaggatgtg aggggtggggg tggagcggat gcaccaaagt ggagaagcaa agatctttct 3720
ggggtcctga gtggcttcca ggagagcggg atgaaccctg gacctggagt aggagaccg 3780
gatgcactgg ggctatctaa cagtactggc atctgatagg tagaggtcag gtacgtgct 3840
aaacactgca gtcccacca catagaatta tccgacccca gatgtcaaaa gtgccaaggg 3900
ccatgagccc tgccataaac tgatacatcg caccctctt ttaggatccc atagtttcaa 3960
ttcatgtaag ttcaacagac acctgaagtc tagcatgtgg gaggctaagg atggagctgg 4020
gaacacaaag gcagctgata agcaggttct gcttgcaaag aggcctcagt ccagtgggag 4080
aaacagacct gggcgcaaac aactccagga caaggcagga catgataaag attataaagc 4140
aggtccaagg aaagtgccgc cagtgggtcca aggagggaga cagagggtcg tccaacagg 4200

gggaggtagg gctttgaaaa caccttcac caggctgggc gaggtggctc acgcctgtaa 4260
 tcccagtagt ttgggaggcc aaggcgggca gatcacctga ggtaggaggt ttagaccag 4320
 cctggccaac atgacgaaac ccggtctcta ctaggaatac aaaaattagc caggcgtggt 4380
 ggcaggtgcc tgtaatcccg gctattcaga aggccgaggt gggagaatcc gttgaacctg 4440
 ggaggcggag gttgtgatga gccaaagattg agccaaaaaa aaattagcag aattggtgtt 4500
 gggccctgaa aaattagtcc gattttgtgg tggtaatggg agaaggacat cccaggagca 4560
 ggggtctggtg ggaggaaagg gaaggaggag gctaaggctg cccaggaggc cttggatacc 4620
 aggccttgag ctggtaacct ccagggttc cagcacgggg cctctgcctg gtgtgacaga 4680
 taccggctgg cctcacttga tggatctcag tactgagctg ggcatttctc tgcccccaa 4740
 cttttttctt tttaaaaata agatggggag tgttcataaa attatagatg tttgttgtaa 4800
 aattttggaa aaccctggaa attatagaga aaataaacat aatctatact cccaac 4856

<210> 1504

<211> 3273

<212> DNA

<213> Homo sapiens

<400> 1504

aagatgtcta atttttctgc cactcaccag ttcccagaat atgaaagcag caattttgtc 60
 tcctttctca actcttctt atgtgccatg gattctgttt tcttcttctt cttttttttt 120
 ttgagacaga gtcttgctgc agtgtagtgg cgcaatcttg gctcactgca acctccacct 180
 ccgggactca agcaattctc gtgcctcagc ctccaagta gctgagacta caggcgtgca 240
 ccacaacgcc cggctaattt tttgtatttt agtagagatg gggtttcacc atgttgccct 300
 ggatggtctc aaactcctga tctcaggcaa tccgccagcc tcggcctccc aaagtgtctg 360
 aattacaggc gtgagccact gcgcctggcc tatttctttt tcttttttaa agagacaggg 420
 tcttgcttta tcaccaggc tggagtgcag tggcatgac atagtttact gcagcctcag 480
 actcctgggc tcaagtgate ctccacctc agcctcctgg gtaactggga ccacaggcct 540
 gtgctaccac acctggctaa ttatctgtat tattattttt ttagagatg gggctttgct 600

atgttgccca agctgacctc aaactcctgg ccttaagcgg tccttctgcc tcagcctccc 660
aaagtgctcg aattacaggc atgcatcacc atgcctagct tattttttac tttttgtaaa 720
aataagatct ccctgtgttg ccctggctgt cttgaattgc tgggctcaag ccatcctccc 780
atctcagccc cccaagtagc tgggactaca ggagtgcacc atttccaagc tttttttctt 840
cttcttcttg ttttgccttt gtcgcccagg ctggaatcca gtggcgcgat ctcggtcac 900
tgcaacttcc gcctcagggg ttcaagcgat tttcctgcct cagcttctg agtagctgga 960
attacaggca cccaccacct cgcctggcta atttttgtat ttttagtaga gacggggttt 1020
caccatgttg gccaggatgg tctcaaactc ctgaactcag gtgatctgcc caccttggcc 1080
tcccaaagtg ttgggattac aggcatgagc cactgagccc aattactatt tttttactca 1140
aaaccgcaca cacaccttcc accccctccc ccctctccat tttccttcat aggggaaggat 1200
gttgctctct gatattctac tgtcaatget ttattccaat tttcttcccc tctctttcca 1260
ccctagactg cctgctccga ggggccaggg atctctgtcc atcttgtgct cggctgtatc 1320
cccagtgcct tcagtacgc ccagcacatg gatggcgacc acagagaagc cagaattggg 1380
ccctgctcat gatgctggtg acaacaacat ctatgaagtg atgccctctc cagtctctct 1440
gggtgtcccc atcagtgaca caaggtccat aaaccagcc cggcccctgc ccacaccccc 1500
acacctgcag gcggagccag agaaccacca ttaccaggta tggagttggg agctgggagg 1560
gggtggtgggg atcccacgga tccaggagcc ccgaagccgg ggtggggagg ggtcaagaca 1620
actgaaactg ggggctttcc tcccctcgtc cccccaagcc tcacggtctc tgctctcgaa 1680
gaagcccaaa ccgcctccct gagagaccct ggcaagtccc ttttctccc aaggetgcaa 1740
tttcttctt tgcaaaaggg atccaaaacc ttgaacttgc acaggaggaa caaggcccag 1800
agagggacag gggattgcct ggggccacac agccagtcag gtccccagtg aaaccccacc 1860
gcagagctca gtccctctcc atcccctcct gtcagctgtc tgtccctgta gttctgtctc 1920
tctctctcag tggcctacat atgtctgtat gtctgtcttc ccctttcttg gactctctct 1980
ctctctctct ctctctctct cagtttctct tgctgtgtcc tttttaatct gtctttctgt 2040
ttccagtttg ttcattgtgc cttgtctaag atgcatctct ttacatgtct tcgtttctct 2100
gcatctctgt ctctctctct ctccattctc tgtctctcct gcctctatgt ctctgtcact 2160
gtgtccacct catttcttgg ctcttccagg acctcttgtc tctgcatctc actctctttc 2220
caccttgtct ttccattctc tctgcggtt tctctccatc tcacgtgtc tctcatctc 2280
tgtccctctc tgtctcccca agactctccc cctccacca gttataattc tgttctctct 2340

tcccccaag caggacctgc taaaccccgga ccctgcccc tactgccagc tggtgccaac 2400
ttcctgatgg gtcctgggcc aggccagcca gggagaagac aaggccccag ccctcctctg 2460
ggagcctcac acctgagacc agcaggacaa ggccattggg ggctgtgggg ccgatgaggt 2520
ggactcagcc aaagactcag cagcacatgg ggcaggtgtc ctggcagggg gacaggagac 2580
tgtaacaggc ccaggtcctt gtgcagcccc tgaatgcacg cccgccttcg gtctgttctt 2640
tcaagcaagc tggcctgggc catgtgcctg tgaaaggcag gctctggccc ctttccatgc 2700
caaagtcccc caagatctgg atatctgggg acaagatggt ggcctcaggc ctgcctccca 2760
ggcagttggc tgggctccca actgtctgtc ctcaatgccc taccccaact ccactagtga 2820
ccctcagagt cttctccct taggacaagg cagacacccc accatgcggg cctcaggtgg 2880
cagagaggcc cagcctcaca ggcctgtggc cccacacacc agtcccagca aggtgaccac 2940
ggctgccgga ccccttcct gttcaggcag gccagcccc tctcagaacc tgctgccagc 3000
tgctggtctt ggccccacc ctgaatctta ctgagtcctt ctgggcagca gctcccttct 3060
ccaccacc ccagcaccg tcccaaatgt ggcctcagct tgcctcccc ttcccaaac 3120
tatgcattca ttcagcaata aatgagcctt tgctgtatgc cagaccagc tctaggctct 3180
tgcagccctg gtagaaagca aaacaaaaac tcccgtttc ccagagggtc acttggcagg 3240
ggaaagaatc aggaaataaa ataaataatg aac 3273

<210> 1505

<211> 3128

<212> DNA

<213> Homo sapiens

<400> 1505

aatgtcccct gagaagttta accatttgaa agatgcacaa gagattatca ttcagcagtt 60
aactaccctt gaaaatgatg aactttctcc acttgctcaa aagcccacaa cttggtctcc 120
agctcagctc tcctcagaca ttgtaagtcc attgaatgat gagatggaat ttttcacctg 180
aagatctgtc ttcaatatc agaaataatt caactttgcc taaaatcaca gttaaaaatg 240
tggatataga gtttaccata cctacagcag tcactataga gggtgaacct tctccagtcc 300

agcaggacaa ccctcctatt tccagtgage aggctgactt ttctctagcc cagcctgatt 360
ccccctccct acctctggag tctcctgaag agagtgaatc ttcagcccag caagaggcta 420
cagctcagac tccaaatccc cctaaggagg tagaaccttc tccagtccag caagagtttc 480
cagctgagcc aacagagcct gctaaggagg ttgaaccatc tgcaaccag caggaagcct 540
caggtcatcc tctgaagtcc acaaaagagg tcaatcctcc accaaagcag gagataccag 600
ctcagccatc agagccacct gagaagggtg aactatctcc agtcctacag caggccccaa 660
ctcagctttt agagccactt aaaaaggtag aatgctctcc agtccagcag gcagtccttg 720
ctcagctctc agagccctct attgtggtag aacctctcc agtccagcag atagcccatc 780
tttgctcca gagctccctc aggaagtggg accctctcta actcagcaa actttccagc 840
tcagactcca tacccttat ggaggcagag ccttctccaa accagcagga ggccacagtt 900
caggcttcag agcccccaa gaatatagaa ctttcaagcc agcagatggg cccaggtcag 960
cttccagagc cacctaagcg ggttgagct caacatccaa tgcattatga gatgataatt 1020
tcaacagcaa ggcaggacca ggctcagtat ccagtgtcac ccagtgtcac atttcaacct 1080
ttagacctag ggcttactat aactccagta tccacaaagg aggctgagca ttcgacaacc 1140
ctgagaaaaa ctgcagttcc tccaaaacac cctgaagtga ctcttgcaac tccagaccat 1200
gtgcaggctc agcacacaaa cctaactgag gtcacagttt aaactttgga tctgaaactt 1260
accacaactc cacaacctac tgcagagaat atatttctc caacctgga gaactcaaat 1320
caacttccag aaccacctac ggagggttgta gctcaacttc cacctcgta tgagggtgaca 1380
attccaacac aaggtcagga tcaagctcag ctttcaacac tggccagtggt cacacttcaa 1440
cctttggacc tgggggtttat catcactcca gaatccacta cagaaattga actttctcca 1500
accatgcagg agacccaac tcagcctcct aaggaatttg taccccaacc tccagtatat 1560
caagagggtga gtgttccaac accgggtcag gatcaagctc agcatccaat gtcacctagc 1620
gttacagttc aacctctgga cctggtggac ttaccataac tccagaacc actacagagg 1680
ttgaacattc tacaccctg aaaaagacta cagttcctcc aaagcacctc gagatgacac 1740
ttccacatcc acaccaggtt cagactctac attcaaacct gattcaagtc acagttcaac 1800
ctttgggtct gaaacttacc ttaactctat ggagggttgaa tcctctatgg aggttgagcc 1860
ttctccaacc atgcagaaga cccaactcg gcctccagag ctacctaagg agttttagtc 1920
tcaaccgcct gtgtattatt atcagatacc cattccaaca ccaagccaag atcaagctct 1980
gcccttctac agccccgatg actacagctc ctctccaaa gcatcctgaa atgacacatc 2040

cacctccaga caagaaccag gctcagcatc caaacctgac tcaattcaca gttcaatctt 2100
tggacctgga gcttaccata actacagaac ctactacaga gggttaaact tctccaacca 2160
tggaggagac ctcaactcag ctttcagacc tgggatttgc catagtcca gaactcacca 2220
tagagactga acattctaca ggcctggaca agactacagc tccacatcca gaccaagttc 2280
agactcagca ttgaaacctg actgaagtca cacatttcac cttctgaact agaacctact 2340
cagaattcac tgggtgcagtc tgaaagttat gcccaaaata aggctttaac tgcacaggag 2400
gaaccgaagg cctctacaag caccaacata tgtgatctct atacctgcag agatgaaaca 2460
ctctcatgta ttgatctcag cccaaagcag aggcctccacc aagtgcctgt accagagccc 2520
agcacctgca atgacacctt caccatcctg tgagaatcgt ctttcctcaa ttgttctgtg 2580
tcctgcctga catgacagcc ttttcgtgga ggccttcctg ggcctccttt atctcacaa 2640
accgaactga caacggactt tctgctttca cctttcttgt caattcttcc ttctcctgg 2700
tctcctttac tgtaggccc cttctctgggt cttttacttg tgattgctct taaccctttt 2760
cttatccact ttcccttagc cccatcacat cattgcttaa cagcggtct cctcccattt 2820
tcacttcacc ctctttacag cagcctgtcc ctcttcccat ctcagtgatg atgctctaag 2880
tgggtaagag ttgattctgt agccaggctg cctgggtttg aaccagggtc tgtcatttat 2940
tagcttgggt accctgagca agttattctt ctctgtgact cagtttcctc gtctttaaac 3000
tggggattat gctagttacc atgccatagg attgttgtga gatttaagt agtgcataca 3060
tgtattgctt acatcgggtc ctagcatatg tgggagtgtt ggctgctaac atgattactc 3120
agtccttt 3128

<210> 1506

<211> 1468

<212> DNA

<213> Homo sapiens

<400> 1506

gtctctgtct cggtctctct cggccccctgg gtctcttcgt ctctgccgtt ctcaggctca 60
gtcccgctct gctcgggtccc tcgcttcccc gccgggctct agccggccgt ctggtggccc 120

gaggtggcgg cgggctgggc gcggggcgcg atgagcggcg cctgcacgag ctacgtgagc 180
gcagagcagg aggtggtgcg cggcttcagc tgcccgcggc cggggggcga ggcgccgct 240
gtcttctgct gcggcttcg cgaccacaag tactgctgcg acgacccgca cagcttcttc 300
ccctacgagc acagctacat gtggtggctc agcattggcg ctctcatagg cctgtccgta 360
gcagcagtgg ttcttctcgc cttcattggt accgcctgtg tgctctgcta cctgttcac 420
agctctaagc cccacacaaa gttggacctg ggcttgagct tacagacagc aggacctgtg 480
caggttgcca caaacaagag gaatcagaca gttctcacc tcaaggggct cacatggagg 540
acaaggcagg cacacaaatg gccaggaggc ccagtgggtg cccttcatgg ggctttaggg 600
aggaagaaat gatgtctgag ctgaatcatc aaagatgact caaagtttcc aggtggttcc 660
taacttcctg gcaacaacca caattgtaat tcgttcaaag agattgactg ctgtggagac 720
agatcatcac catcaccatc accatcacca tcaccaccac caccatcatc atcattgtca 780
tcgtcatcat tatgttgctt ttagctcact ggagcctcac agaacctgt gagcttctct 840
gtgtcatagc cccgaccaca ctggattgtc attttctatg tgtccatctc gccattatgg 900
actgttaatt ccagggcatt gacagacctt cctcagagga ggcctcagca agtgtcagcc 960
acacgaatga gtgtatggag caaaggagga gtgaacgtct aggagaccag ccgttacccc 1020
aactcctccc catccgctcc tactctggac tccaatctat gccctacccc agctcttgga 1080
tttggccttt ggatcagggt cttctggtaa tgaagcctca ctttccccc aactaactct 1140
gatctggcct accctgctcc tgactaacct caaggatcct gagtctcctt cagcctaaca 1200
gctccagaag ctgaactcca gccctaagag cccagctgc agacaggcct ctggccaaga 1260
gcttagtcag gctaccctga ctaagccaca gggttggcat gccctctggg cagcccctga 1320
accgggctct gaaaacacag gaatggacaa ggtaatctac ccgagtctg agcctgcaag 1380
gtagttgaga cagatcttga aggagagtgg gcacagtcag aaaggaaaaa gtggctcagt 1440
gtaaaataaa actgacacaa gcccatgt 1468

<210> 1507

<211> 3068

<212> DNA

<213> Homo sapiens

<400> 1507

agccgggagc tgcggagctg gagggaggag gacgagagcc cggccctcag cccgctgtga 60
ctctcctcag cccctccccc cagcccgggg tgggggccga ttgactgttt ccaggacccc 120
ctcgggtagg ggggctggag agcccccagg tggaccatgg cggtagatt ccaggtggct 180
gacatggagg agctgacat ctgggaacag cacacggcca cactgtccaa ggacccccgc 240
cggggctttg gcattgcgat ctctggaggc cgagaccggc ccggtggatc catggttgta 300
tctgacgtgg tacctggagg gccggcggag ggcaggctac agacaggcga ccacatcggt 360
atggtgaacg gggtttccat ggagaatgcc acctccgct ttgccattca gatactcaag 420
acctgcacca agatggccaa catcacagt aaacgtcccc ggaggatcca cctgcccgcc 480
accaaagcca gcccctccag ccagggcgc caggactcgg atgaagacga tgggccccag 540
cgggtggagg aggtggacca gggccggggc tatgacggcg actcatccag tggctccggc 600
cgctcctggg acgagcgctc ccgccggccg aggcctggtc gccggggccg ggccggcagc 660
catgggcgta ggagcccagg tgggtggctct gaggccaacg ggctggccct ggtgtccggc 720
ttaaagcggc tgccacggca ggacgtgcag atgaagcctg tgaagtcagt gctggtgaag 780
aggagagaca gcgaagagtt tggcgtcaag ctgggcagtc agatcttcat caagcacatt 840
acagattcgg gcctggctgc ccggcaccgt gggctgcagg aaggagatct cattctacag 900
atcaacgggg tgtctagcca gaacctgtca ctgaacgaca cccggcgact gattgagaag 960
tcagaaggga agctaagcct gctggtgctg agagatcgtg ggcagttcct ggtgaacatt 1020
ccgcctgctg tcagtacag cgacagctcg ccattggagg acatctcgga cctcgcctcg 1080
gagctatcgc aggcaccacc atcccacatc ccaccaccac cccggcatgc tcagcggagc 1140
cccaggcca gccagaccga ctctcccgtg gagagtcccc ggcttcggcg ggaaagtcca 1200
gtagattcca gaaccatctc ggaaccagat gagcaacggt cagagttgcc cagggaaagc 1260
agctatgaca tctacagagt gccagcagt cagagcatgg aggatcgtgg gtacagcccc 1320
gacacgcgtg tgggtccgctt cctcaagggc aagagcatcg ggctgcggct ggcagggggc 1380
aatgacgtgg gcattctcgt gtccgggggtg caggcgggca gcccggccga cgggcagggc 1440
atccaggagg gagatcagat tctgcagggt aatgacgtgc cattccagaa cctgacacgg 1500
gaggaggcag tgcagttcct gctggggccg ccaccaggcg aggagatgga gctggtgacg 1560
cagaggaagc aggacatttt ctggaaaatg gtgcagtccc gcgtgggtga ctccttctac 1620

atccgcactc actttgagct ggagcccagt ccaccgtctg gcctgggctt caccctgtggc 1680
gacgtcttcc acgtgctgga cacgctgcac cccggccccg ggcagagcca cgcacgagga 1740
ggccactggc tggcgggtgcg catgggtcgt gacctgcggg agcaagagcg gggcatcatt 1800
cccaaccaga gcagggcgga gcagctggcc agcctggaag ctgcccagag ggccgtggga 1860
gtcgggcccc gctcctccgc gggctccaat gctcgggccg agttctggcg gctgcggggt 1920
cttcgtcgag gagccaagaa gaccactcag cggagccgtg aggacctctc agctctgacc 1980
cgacagggcc gctaccgcc ctacgaacga gtggtgttgc gagaagccag tttcaagcgc 2040
ccggtagtga tcctgggacc cgtggccgac attgctatgc agaagttgac tgctgagatg 2100
cctgaccagt ttgaaatcgc agagactgtg tccaggaccg acagcccctc caagatcatc 2160
aaactagaca ccbgtgcgggt gattgcagaa aaagacaagc atgcgctcct ggatgtgacc 2220
ccctccgcca tcgagcgcct caactatgtg cagtactacc ccattgtgggt cttcttcatc 2280
cccagagagcc ggccggccct caaggcactg cgccagtggc tggcgctgc ctcccgcgc 2340
agcaccctgc gcctctacgc acaagcccag aagctgcgaa aacacagcag ccacctcttc 2400
acagccacca tccctctgaa tggcacgagt gacacctggg accaggagct caaggccatc 2460
attcgagagc agcagacgcg gcccatctgg acggcggaag atcagctgga tggctccttg 2520
gaggacaacc tagacctccc tcaccacggc ctggccgaca gctccgctga cctcagctgc 2580
gacagccgcg ttaacagcga ctacgagacg gacggcgagg gcggcgcgta cacggatggc 2640
gagggctaca cagacggcga gggggggccc tacacggatg tggatgatga gccccggct 2700
ccagccctgg cccggtcctc ggagcccgtg caggcagatg agtcccagag cccgagggat 2760
cgtgggagaa tctcggctca tcagggggcc caggtggaca gccgccacc ccaggacag 2820
tggcgacagg acagcatgcg aacctatgaa cgggaagccc tgaagaaaaa gtttatgcga 2880
gtacatgatg cggagtctc cgatgaagac ggctatgact ggggtccggc cactgacctg 2940
tgacctctcg aaggctgcca gctggtccgt cctccttctc cctccctggg gctgggactc 3000
agtttcccat acagaacca caaccttacc tccctccgcc tggctcttaa taaacagagt 3060
attttcac 3068

<210> 1508

<211> 4234

<212> DNA

<213> Homo sapiens

<400> 1508

```
ttttgattga atagatttaa tctggatctc acgtgggggc acagtttctt ttagaaattt    60
taactcgtgg ttcagttaaa aatctcatga tttttcaact tttgtctgtt tagtttgaga    120
aatgctccct attcagttgg gttcctctag ctgctgtggg tgggctggct ctcaaggttt    180
ccagtgtgtg tcatgtccca aatccaattc tcatccttat tcttttgaca catttgacac    240
tattggacct ctttttctct ctctctctct ctcttttaaa gagacagggt cttggtctgt    300
tgcccaggct agagttctac ggtgcaatca tagctcactg cagcctccaa ctgctggggg    360
caagccatct tccttcttca gccttccaag tagtagggac tacaggtgcg catcaccttg    420
cctggctaca ctttaaaatt ttcgtggagg tctcactttg ttgcctgggc tggctctggc    480
ctcaagtgat cctcccacct cagcctccca aaatgttggg attataggca tgagccactg    540
caccagccc ctccctttct ccttgaaact tctttcctct tgacttctgg ggttactcct    600
ctctttggga gttccccctg cctcactggc tgatatctgt cttttttttt cttttctcat    660
ttcttccttc taccagtcca aaatccatgc tctgtaacac ccatattcaa aaattcttta    720
aaatatTTTT taataacata tttgacagca agacctaact tgacctgaaa ttattcagtg    780
gaaaaacctg acctaaagta gcaggaggct atttctagct tttatcccaa cttagtgtga    840
atattcatat ttttttttgc cacagaaatg tttcttccaa gatcttgctg ggaatgttat    900
gtaataaatc atattatttc caaagtctga aatattctga attctgaaac acaccttggg    960
gccaaggaat tctgagtaaa acagagcata gaccattca ctcagtttct tgggtgatctc   1020
tttcatctgg tctcatgact ttaattccat ctttacctca atgactccta aatttgggtg   1080
tctagcccag ccctctcttc tgaattccag actcatctac tcagctgcct gctcagtgcc   1140
tctgcctgca tgactagtgg gtgtctccaa gacagcgtgt tcagatccca tccttccctt   1200
ccagtctctt cctcctgctg tctcccccat ctcaattaat ggcagatcta tctttcatct   1260
gctcaggcca tgtacttgag gattgttctt gacactctgg cactccacat ccaaacttag   1320
tggcaaactc tgttggctcc taccttcaaa gcagctccga atcagactgc ttctcacccc   1380
caacctgtca gcacccttac ccagtgtctc cttgcctcag tgttctccac ctgttctccc   1440
tgcttctttt cttgcccta caccctgttt tcaacagagt gatgctttta taatgtgggt   1500
```

caaatcctgg cactactctc ctgcaagcca ttatttcatt cattcattca ttcattcatt 1560
cattcatttt ttttagacag agtcttgctc tgtcaccag gctggagggc agtggcacia 1620
tctcagctca ctgcaacctc cgcctcccgg gttcaagtga ttctcttgcc tcagcctccc 1680
gagtagatgg gattacaggc atgtcccacc acacctggct aatttttgta ttttagtag 1740
agactatttt gccatgttgg ccaggctggt ctcgaactcc tgacctcagg tgatccccct 1800
gcctcggcct tccagagtgt tgggattaca ggtgtgagcc actgcacccg gcttcctgca 1860
aggcttttag aagacttcct cttatgctca gacctacca ttggatacag agcattgcat 1920
gacctggacc acctgctatc tctcttacc tcttgccctc cttctctgcc ctttcatcac 1980
tctgctgtca ccacacggcc ctccccactg tttctctggt cttcccagat ctatacacag 2040
ccttcaggtc taggcttaga tgtcacgta tgaatgaggc ctttctgacc actgtagttc 2100
aaacagcacc ttccttgctg ctgcatatc cccttccctg ctttagttct caccttagtg 2160
tatatcttgc catctaacat gctatataga ttttacttgt ttgtccctct ccgagaatat 2220
aagctctttc actcttttgt ctcaaagaa gcttcacagt ttctagaacc agaaaattta 2280
ctggtttgtg gtgttgctta ataactttgt tgaaggaagg tatacacctg tttgatcaa 2340
taatcattta ttgagtatgc ctactatgtg caagacactc tgatagatgc tgggcataaa 2400
acataaataa gacacatgat ctctgctttc aaggaatctg gagaagacct ctgggagata 2460
catatttttg agtaaagctt caattcaaac tgtgctaaat gttataaaca gaggtatgta 2520
tgtgtaaatt tgagatagag ttagccactt gaggaagtgt gggacacttg aattgattat 2580
tgaagaaaga tttcatttac aaagccaaaa agaggtgaaa gggaacctaa gatgtcagaa 2640
acttctgggt atggtagcat gtgcctgtag tcccagctac ttgggagact gaagcagggg 2700
gattccttga gtctcgcagt tcgagtcag cctgagtaat atagtgagac cccgtcttta 2760
tgaaaagaag aagataccag aaatcacata tacataggcg tagagggatg aaaacatctt 2820
gtgcttgagg aattgagagt gattgtatgt ttctgggctg gaagagtggg aaagtaggtt 2880
tagctaaagc tgaggagcct tctaatacata ctgaagaatt tgagctcttc gttgagtatt 2940
ggtgagctct ccaaagttaa aagcagagaa aagatgtgat caaagctatg ctttagtaat 3000
attctcagaa aatacttagt tgatgttctg gaggtagaag gatcagtgag gaggcattgc 3060
gcaagttcag gactgagacg acaagggccg gaatcaagac attggtagag ggaatgaaga 3120
aggaggaggg aacagataag ttgttaggca gtattatcaa caaagcttgg tggctggttg 3180
gatatggaat gagaaggaga ggaaatattt gggattatga ttcaggtgtt tctatcttat 3240

gtggcacctg gataggtgtt agtgctgaga ggtacaggga aagaagtaga aatggagagg 3300
 atggtggatg ggccttgatt tttagacttg ctaagttcaa gatgactgtg taacctcaaa 3360
 ctgtggagca gtctgccccat cattcacaca tgtgtcttca tcttaggaga gaaggaaagt 3420
 gaagataaaa tacatgtgag tttacttaca attggatctg aaaaatggag tggttaaggt 3480
 tgcccagggt aagcctggga gatgaagaag aggaaagggc caaggtaaga gaaaccctaa 3540
 gaaatggtaa catttaagga gcaggcagag gataaacagc ccatggagat ttacaaggca 3600
 tggccagaag gtaaaagagc tgctctatag tgcaaaggaa gcactaatat gctttgtttt 3660
 ttctctcctt caggagaagt ttcggtgtcc gacatccctg tctgttgta aagacagaaa 3720
 cctaactgag aaccaagaag aggatgatga tgatatcttt gatccccag tagatctgtc 3780
 ttcggatgaa gaatattatg ttgaagaaag cagatctgcc aggcttagga agtcaggcaa 3840
 ggagcacatt gataatatca agaaggcatt ttccaaagaa aacatgcaga agacacggca 3900
 gaatcttgac aagaaagtga acagaattag aactagaata gtgaccccgg agaggagaga 3960
 gaggctaagg cagtcaggag agaggctgag acagtcaggg gagaggctga gacagtcagg 4020
 ggagagggtt aagaaatcta tttctaattgc agctccctca aaggaagctt ttaagatgcg 4080
 cagcctcagg aaaggtaagg accgaacagt ggctgaaggt gaggaatgtg ccaggagat 4140
 gggtgtggac atcattgcca ggagcgagtc tctgggcccc atcagtgagc tctactctga 4200
 tgagctcagt gttctccacc tgttctcctt attt 4234

<210> 1509

<211> 3542

<212> DNA

<213> Homo sapiens

<400> 1509

gacaattctt gccatgtggg acacttgagg tgagaccgg tcttgcttcc taatccacct 60
 accctgctgt gcccggcaga tgccacagac cctcctagcc aggtgctgat ggatgaattc 120
 aagaaagacc aagtcctcct tgaaagctcc ctctaggcac acacggggct cctgcccact 180
 gcctcactgc ctccagagcc acaggtccag cgtccccagg tggcccctcc acaggggccc 240

caggcacggc acatgctccc tcatttatitt ctggagccta gttacacagt gcacaccggg 300
cctgcagggt ctgcacgtga cccccgctgg gactgcctaa gaaagggaga aggagcgagc 360
tgggcctgga gcacgggagg cactggccag gccaggcctg ggagcaagct ggcacctcag 420
gctcagaaaa agggggaagg gccagcaaag ctgactggga gagggatgac agcaaggtgg 480
gagagaaccc acagagcatg cagccaggag cagggtaggg agaccaggac aggagaggcc 540
acctgcgcct cccaggtgag gatggagggt gagctcatct ggggagcagg ctgcagagtc 600
ctgggtccag gcacctcaac agtaattttt aaccagaaat gcccactgc cccaggggag 660
atggactcag ttatgaggtc tgctgtgcgt gattctaaag catccgctcc cctacagaca 720
gggcactggg catgcttgtg ttctagagcc cacagggtg gtgtcaaatac agtgggcaaa 780
cagggccacc aacgcccgtg caagcgtgat gacgttcaca ccatgcccac ccatcacccc 840
acccaacagt cacgaagata gcgagactct tgctttacaa aatgaagtgc tggcccaaga 900
gctgtaggga cagctaagtc ctacaaaccc cagggtctcc gccaacacaga gccaaacttgt 960
ggccccgaca ccaacaggcc tccaatgcct ccttccacct ctgtcccat cctgctgctg 1020
gtctcagacc ctgctccggc ttcttccac catcccgcg gagcaagtgg ggccaggccc 1080
tgatggtgtc agcagccttg ctgggcagga ggcagccctg ggcagacaca ccctgtgcgc 1140
gcgtcggaag agcaacgcga gaggagagtc aggcacagaa aactcaagac tgattcacag 1200
gctctaaaac cagctttctt tccacacgca cttctgagac tggcgtcaga atccatggaa 1260
ttcaggcaga ggacacaccc aaggtctagc ctgcctgcct gtggagataa acctgagaag 1320
acgagtttac tcgcttggtt gctgaccaga tggctgtcgg tccgtgtcgg cccctgtccg 1380
tgcaagagcc ccgctggcta acggaaccag cacgcggcca ccgcaggaac ctcacccccg 1440
gagacgcca aactcaaggg ctacagccctg tagctgctgc agctcgttcc aacctcaaca 1500
tgcaaaactc agaggaaacg cagcacaggc tgccggtcac gtggagatga cacagactcc 1560
tggctcccag tgacaggcga cgggggctga ccgggaacgc cacgcagcac caagggcagc 1620
cctggagtct gcacatcaga cacactcaag ggagaggccg gcggccccac gcagccctct 1680
ggtgaaggcc ttctgagccc ccggcagccc gagcagtaag ggtgccacac ccaccacacg 1740
gggcacaggg cagtttcaga aggcaggaca agagggcagc ttacctcttg gtgttgtagg 1800
ccgtgtcctg aggtgtttcc tccagcagcg tcacatagcc aagcgtacag gtgaggatga 1860
agagcacggt taaggtgtgg gctcgctga aatccaaaaa cgcataagca tgggtgtcaga 1920
gcttgggcag cattgctaaa tactcacgta acaggcccca aatcctctct acgtcaagga 1980

gagggcttaa actccactct ccaactccca accagcaact ggctgcgagt ccctagctgg 2040
gtaactccga gatgaccctg cgtctgctgg ccagtcaggg ctgagaccag cccccaggag 2100
gctggacagg aagagccccg tgttcctggg aagctgaagg ccgctgctca gagggcacat 2160
gctgccactg gcgtccaggg caggtatctg ctattaagag caactggaca cgtaaaacac 2220
gcgcttttca ctgcgcaaga caagccgaga caacaactct ttgggttcat gaaataacat 2280
ctgagattca gtgcagcagc ccaagacacc aagagctgag aaggggcctg agcagaggcc 2340
tgcagagtga ccgctgctag ctggagtgag ccacgagccg tgggtctgcc cgtcctctgg 2400
cctgtcagag cccagacgtg ggaggaggag gcagggcgct ccctttgcag tcttgtcctg 2460
tcccatcgct ggtggaaaag cccacaacca gcctagtatc agaactgggg gccaccagac 2520
cccagccact gcctgtgcca gacactcgcc tgagaccccc tctgcatgac catctgcaaa 2580
tggaggcaga gacctagttc ctacatccat cggagtggtgt cctcggagag atgatgcacc 2640
cctctgtgcc tcagtttctt catgtctaac ccaggtccta catccaccag agtgtgtcct 2700
cacgtctaac ccaggtccta catccaccgg agtgtgtcct cacgtctaac ccaggtccga 2760
catccaccgg agtgtgtcct cacgtctaac ccaggtccga catccaccgg agtgtgtcct 2820
cacgtctaac ccaggtccga catccaccgg agtgtgtcct cacgtctaac ccaggtccga 2880
catccaccgg agtgtgtcct cacgtctaac ccaggtccga catccaccgg agtgtgtcct 2940
cacgtctaac ccaggtccga catccaccgg agtgtccctt cacgtctaac ccaggtccta 3000
cattcaccgg agtgtgtcct cacgtctaac ccaggtccta catccactgg agtgtgtcct 3060
tggagagatg atgcaccctt ccgtgcctca gtttctctcat atctaaatgg ggaagcttct 3120
gacttccaag gacatcatga aaattaagtg aacaatgcac ttaaagcatg ttgcccagga 3180
cttgcctcca tgaaatgtaa actatttgtg ccctaaagaa atgaaaaggc aagtcacaaa 3240
ctgggagaaa atattcacia tacatatatc tgataaaact ttgtaggctg cagcgtctg 3300
tagtcccaac gctttgggag gctgagacaa gaggattgct tgagcccagg cgttcaggac 3360
cagactgggt aacacagtga gaccccatct ctataaaaaa ttagccaggc gtggtggcag 3420
gcacctgtag tcccagctac tcgggagggtg gcagattcgc ttaagcccag gttgaggctg 3480
cagtgcgcta ggatgattgt gccactgcac tctagcctgg gagacagagc aagatctgtc 3540
tc 3542

<210> 1510

<211> 3104

<212> DNA

<213> Homo sapiens

<400> 1510

```
ggacgtttac gctgactcct ccagtgcctc atcaatgaag taagcaggca gctacgttct 60
ggatggctag catgtaccga aggcacaaaa cctccagagt tggcagagtt aagtccctggc 120
gtgcccagg ctatccagg gaacacgcgg gacagacagc accctcagcc tgtcccatg 180
accctctgct ccagtctgag gggcaggaca ccatgagacc tctcagacac agagtccacc 240
ctcgacatga cccggatgaa aggcaggagt gtgtgccctg cttttgccct cgaagctcgc 300
tgaaggggac ccattctctgc aagcccacag ccctacctgc agcatccaca gcctcagaga 360
gcagcggggc cccttaccct tgaacccct ccaagagcat caggacaaca agccttgagc 420
tgtggagaca agagaaccag tatccctggc ccaggaggga ttccaggaga ggacacgggc 480
aggagccctg gccagagcc agaaccaaga gtccagccag cgaaactgga actagggtcc 540
ccggcaccca ggactctgcg agcatcccc aacagcaagc ctttctgcaa gggagacggg 600
ttggcccacc ccaggctgtc cagctccagc agccttgagc gcagcctctc cagaaaaaga 660
gcctggtcct cccaccctg ctccccacag gctgtccctg accctgaggc ccagaggcac 720
aagaggactt ctgtagagcc caggggagca ggctgttctc ttggggcccc agcgggctca 780
aggtgtggcc aggctgtccc caactcagga tagatcatag gctgtcctgc gtacctctc 840
tggaactccc tgcccaagct ctgccatgga cctggacgtc aggggcctgt ggtttaactt 900
tgaataggga ttctggacct tacacgtgtg ccctggacag cccagaacc atggggtggg 960
gaccgacca gcaagcccac cggggccctg aaaccggcc ctgccggaca ctgtgataat 1020
aaccaagagg caagtccaga gacatccact ttgcccattg gcacctgcat ccaacttctc 1080
agcaggcagt gactggcatg gtgtgggggc agccggggca gcacctggcc agcacctggc 1140
cagctgccct gtagcccccg atggctccag tgctctgga cctcattttc tactttctac 1200
ggggaaacct actccctcag aggccaccag aggggaagagt gagcaaggcg ttctctgagt 1260
cccgaccagc cagcggcatg tcctgtggcc tctgactcaa cctatgagac agagctctga 1320
tcccagggca cacttcccag gacacggggc ccagcctcaa ccagagccct gtgaaggag 1380
```


gggcaccagg atgaccacat gggggacat ggcgctgcac acctgggcac tgtacttctc 1440
attggagaat ccaggcaaga tcttgaagca ggtgcatgag gtcctgagcc tgtgcagcaa 1500
acagcactca tctggggttg gcacgaaggg gtctacagag ccacggccac cgcagcctct 1560
tcccggcccc atctgtgcag tgcaagtgat ccacgcctgc tcctaaaccc agcccagcaa 1620
gcagcagcag cccgggcccc caagcccgcc aggccaatgt gctgcccaga ggcttcgagg 1680
ccctgcccgc tgtacctccc accacctgga agctgcctcc tgacgccttc cagccactgc 1740
tgcagccgca acaggtgtcg cggccagtgc aggctttcca gacggtggca gcgcccagca 1800
gccgttgcct cagctctttg gtggcagcca ggccaacaag ggcagcgacg atgactagga 1860
tgatgagtga gcaaacagct ccacactggt ggacaggctg ggtgcgccacc cgggtggtcct 1920
caaaggctcg ctgggcctgt accaccgtta taaatttgag atcatgagat tataccgttt 1980
gccttcttgc tttttgaagt acgagtattt ttatgcacac tttgtagact tcaaaatcca 2040
tgaagagtct caaagaagcc ggatggatgg agcctgctgc ggatgccttt tactctcgta 2100
gatcagggtg atttacattc cacctgtagt ctgcttgcaa acacacagag cagccttgca 2160
gctttgtgcc tttagactct tggttttgca tttctccctg ctcccttctt ccttccagta 2220
agctgcaact tttctgattg aaagggtgca aggctaacac acggaatgac taactcagga 2280
tcacatactg gcagtgggag aggcaggagg agcagctgcc atcaattgcc agggccaagt 2340
ggatgatagg atggatgctg gtgcatgcgg aggaggcaga cgcaacgctc atctctaata 2400
atgatgtctg ttcctcaga ggcggctaga gcatcacctc ttcacgcaag tgtcttgaaa 2460
ctcagcttga agatttcagc aaatgtgtct tacagagaag agaagaggga gtcagcccat 2520
cgggattaaa aatatagagg cagtgacaac acacactcgg cttcagttct taggagagtt 2580
ttggttttga tttttttttt tttttggaga agattttttt tttaatggat ctacactgtt 2640
aactgagact ctgttgagat tctactggtt acttaaaaac ttctcaggga tgtctgtaaa 2700
tttcagtgtt atatgtcatg aaaactggtg tgggcagatc tgttggttga aataatttct 2760
actgtttcaa tgtttttgta gttactgagc taaatcatat ggtaattgac agtttctaaa 2820
tctgtcacct aaaggttaaa ttatctactg ttgccgtgaa gtcaaactta ctgctgcctc 2880
agaaatccct gggtagcg atggtcatac agaagtaagg aagtcaattt gaaatgtcag 2940
tgagtcaaaa tgattaaaga ggccagggtgc agtggctcac gcttgtaatc ccagcacttt 3000
gggaggctga ggcagtggat tgcttgagtc caggagtttg agatcaacct gtgcgacatg 3060
gcaaaaccct gtctctacaa aaaatacaaa acaaatttat ccag 3104

<210> 1511

<211> 4516

<212> DNA

<213> Homo sapiens

<400> 1511

aagagaattg ggtggacagc aggaccatct acgtgggaca cagggagcca cctccgggcg	60
cagaggccta catccacag agataccag acaacaggat cgtctcgtcc aagtacacat	120
tttggaaactt tataccaag aatttatttg aacaattcag aagagtagcc aacttttatt	180
tccttatcat atttctggtg cagttgatta ttgatacacc cacaagtcca gtgacaagcg	240
gacttccact cttctttgtc attactgtga cggctatcaa acagggttat gaagactggc	300
ttcgacataa agcagacaat gccatgaacc agtgtcctgt tcatttcatt cagcacggca	360
agctcgttcg gaaacaaagt cgaaagctgc gagttgggga cattgtcatg gttaaggagg	420
acgagacctt tccctgcgac ttgatcttcc tttccagcaa ccggggagat gggacgtgcc	480
acgtcaccac cgccagcttg gatggagaat ccagccataa aacgcattac gcggtccagg	540
acaccaaagg cttccacaca gaggaggata tcggcggact tcacgccacc atcgagtgtg	600
agctgcccc a gcccacctc tacaagttcg tgggtcgcac caacgtttac agtgacctga	660
atgacccccgt ggtgaggccc ttaggatcgg aaaacctgct gcttagagga gctacactga	720
agaacactga gaaaatcttt ggtgtggcta tttacacggg aatggaaacc aagatggcat	780
taaattatca atcaaatct cagaagcgat ctgccgtgga aaaatcgatg aatgcgttcc	840
tcatttgtga tctctgcatt ctgatcagca aagccctgat aaacactgtg ctaaaatacg	900
tgtggcagag tgagcccttt cgggatgagc cgtggtataa tcagaaaacg gagtcggaaa	960
ggcagaggaa tctgttctc aaggcattca cggacttcct ggccttcattg gtctctttta	1020
actacatcat ccctgtgtcc atgtacgtca cggctgagat gcagaagttc ctcggctctt	1080
acttcatcac ctgggacgaa gacatgtttg acgaggagac tggcgagggg cctctggtga	1140
acacgtcgga cctcaatgaa gagctgggac aggtggagta catcttcaca gacaagaccg	1200
gcaccctcac ggaaaacaac atggagttca aggagtgtg catcgaaggc catgtctacg	1260

tgccccacgt catctgcaac gggcaggtcc tcccagagtc gtcaggaatc gacatgattg 1320
actcgtcccc cagcgtcaac gggagggagc gcgaggagct gtttttccgg gccctctgtc 1380
tctgccacac cgtccaggtg aaagacgatg acagcgtaga cggccccagg aaatcgccgg 1440
acgggggggaa atcctgtgtg tacatctcat cctcgcccga cgaggtggcg ctggtcgaag 1500
gtgtccagag acttggcttt acctacctaa ggctgaagga caattacatg gagatattaa 1560
acagggagaa ccacatcgaa aggtttgaat tgctggaaat tttgagtttt gactcagtca 1620
gaaggagaat gagtgaatt gtaaaatctg ctacaggaga aatttatctg ttttgcaaag 1680
gagcagattc ttcgatattc ccccgagtga tagaaggcaa agttgaccag atccgagcca 1740
gagtggagcg taacgcagtg gaggggctcc gaactttgtg tgttgcttat aaaaggctga 1800
tccaagaaga atatgaaggc atttgtaagc tgctgcaggc tgccaaagtg gcccttcaag 1860
atcgagagaa aaagttagca gaagcctatg agcaaataga gaaagatctt actctgcttg 1920
gtgctacagc tgttgaggac cggctgcagg agaaagctgc agacaccatc gaggccctgc 1980
agaaggccgg gatcaaagtc tgggttctca cgggagacaa gatggagacg gccgcggcca 2040
cgtgctacgc ctgcaagtc ttccgcagga acacgcagct gctggagctg accaccaaga 2100
ggatcgagga gcagagcctg cacgacgtcc tgttcgagct gagcaagacg gtcctgcgcc 2160
acagcgggag cctgaccaga gacaacctct ccggactttc agcagatatg caggactacg 2220
gtttaattat cgacggagct gcactgtctc tgataatgaa gcctcgagaa gacgggagtt 2280
ccggcaacta cagggagctc ttcttggaag tctgccggag ctgcagcgcg gtgctctgct 2340
gccgcatggc gcccttgagc aaggctcaga ttgttaaatt aatcaaattt tcaaaagagc 2400
acccaatcac gttagcaatt ggcgatggtg caaatgatgt cagcatgatt ctggaagcgc 2460
acgtgggcat aggtgagctt cgtccttgct gctggcacat cctggtggcc aggtcacccc 2520
ttcgctagac aaaggcccat ggcagcacgc aggtgcattc aggacacccc cgtcaccacc 2580
ctcgtgtgtg accgggaagg ctcattgatga tggtttcac cgttcttctc cccgtccctg 2640
ccctgtgtgt ggtgtgcaga aagcatttct tcagctcctt cacctccgtc ttctaggtgt 2700
catcggcaag gaaggccgcc aggtgccag gaacagcgac tatgcaatcc caaagttaa 2760
gcatttgaag aagatgctgc ttgttcacgg gcatttttat tacattagga tctctgagct 2820
cgtgcagtac ttcttctata aggtaggagg gtcgccgctc cccctcacgg tgtagcaac 2880
aggtcacgct cagggtggca cgacccttgt ctgagccact tgatgccaca agaggtcatt 2940
gatctccgag gagcagcaac tgtcagaaag gaaggggtga atctgattgc agtcatctct 3000

tgcttagctg tgactttgct ttttacagtt tccattacct acagtcaacc catgccccaaa 3060
aatatcaaac gcaaaattgc agaaataaac agttcctcag gtttaaattg catgccattc 3120
cgagcagcgt gatgaagtct cacgccgtcc tgctgtctcc ttcctgggat gtggcttgctc 3180
cctttgtccg gtgtgccgat gctgtgtgta cactacctgc ccctcagtca ctctgtagct 3240
gtcttggtga tgaggttgac agatcacaag aagaagggtg aatatgacac aataatatat 3300
tttaagagga ggaggagag accaaattca tgtaactttg attacggtat attattatag 3360
ttattctatg ttttgttggt actctttcac tgcacctact ttataaatta aactttatca 3420
tgggtgtgta tgtatacgaa cacacatacc catctagagc atagacaggg ttcaggacca 3480
tccgcagact ctgcatcccc ccagggtctg ggaatgtacc cctgaggatg aggagggcct 3540
gccgtgccgc gggaggagac cccagccct tttctcccc cacagaattg agtgtggaac 3600
cagtgagaac ctttcaggtg gaaatgtttg aggaaggatt ccttattcac tgtgcagttc 3660
gattctttcc cgtttatact gatacttgc tttgccttctt gtttctcttg gagctgacaa 3720
atttcctcta tacgttgtct gtcttgagtg gccaaaacgt ggtcacatgt gcatttcagt 3780
tgcccctgaa ataagagaaa gctttctaga acccattagt gctgttctgc cgcacgttg 3840
gtgcacgtgg atccctctc ccatgtgggg tgggccacgt cggtaggtgg cggctgcctc 3900
cctctgtccc gtcaccgaac taacagttat gccttgcctt tcagaacgtc tgcttcatct 3960
tccctcagtt tttataccag ttcttctgtg ggttttcaca acagactttg tacgacaccg 4020
cgtatctgac cctctacaac atcagcttca cctccctccc catcctcctg tacagcctca 4080
tggagcagca tgttggcatt gacgtgctca agagagaccc gaccctgtac aggtaccatc 4140
ctccaaacag cctctcctga gagcagagag agtaactagg cagcactctg gcagttcctt 4200
ccaatagcca cctggcagac ctcagttgag ggccagaagc attcggcatc tgctgatatt 4260
cttgcttgat caggagcttg tttaaactgg aagcaacata gctcaaatgg agattcttca 4320
agtcttgctg gatggtttat gctgcatttg gaacatctgt gtggagccag tttgcacttt 4380
cctgtgcttt ctgacagtcc tgaggagct ggggtacaag cgtcttctc gttgtgacct 4440
tagggaatct gtggcctaag ttatccttta aaaccatgtg tgttccattc agtgagaaaa 4500
aacaaaaatt aacagc 4516

<210> 1512

<211> 3451

<212> DNA

<213> Homo sapiens

<400> 1512

```
agctcggtcg cttgtgcgtt ccgctccggc cgccctttgc gcttggatcc acttcccat    60
ctgtaacgag gtgttgagac gagcggcatg gagcaggcct accagctctt ggcctggcgc    120
agtggtaggg tcgtgggcag ctttgagaag acaaggaagc tcgtgctcag gcctgccctg    180
gcagtgggag tgactgctgt gctcagcgtg gccgggattc tgaatgccgc gcagcccccg    240
gctgtgaaaa ctgtggaggt gcccattcat cagctgcctg cctcaatgaa caacctcaag    300
atcgtgctcc tctcagacat tcaattgggc cccacagtgg gcaggaccaa gatggaaatg    360
tttgtgagga tggatgaatgt gctggaacca gacatcacgg tgattgtggg tgacctctcc    420
gactcagaag cctcggtcct gcggacggct gtcgctcctc tgggccagct tcattcacat    480
ctcgggtgcct acttcgtcac aggcaatcat gagtactaca cgtcagatgt cagcaactgg    540
tttgcacttc tggaatccct gcatgtccag cctcttcata atgagaacgt gaagatttcc    600
gccacacggg cccaacgtgg tgggtggtggc agtggcagtg ggagtgagga tgaggactgg    660
atctgcttgg ctgggggtgga cgatattgaa gcagacatcc tgcactactc tggccgtggc    720
atggatcttg acaaggccct ggagggctgc agcccagacc acacaatcat cttgctagct    780
caccagcccc tggctgccaa gagagctctc caggctcggc cagatattaa cctgacctt    840
tctgggcaca cacatgctgg gcagatcttc cccttgaacg tagcagccta tctcctgaat    900
cccttctttg ctggtctcta ccaggtggcc caggctacat tcgtgtatgt cagcccaggc    960
acagcctact acgggatacc catgaggctg ggtagcaggg ccgagatcac agagctcatc   1020
ctgcagcggc ctcctgaac tggccctgcc ctgtgcacct ctgccctgcc cttgtcctcg   1080
acctccatc ctgcttcaga gtggtttgcc tgcttttccc ctccagcctt gccactcat   1140
ccttgcctac acacccttgg tcacaagcct gactcaaaca gtgacttatg gtgggcctgc   1200
ctggcatgtt caggctggtt taactatttc cttggccagt tgcttttttt gatgcacttg   1260
tgagatcact aaggtcacat atattagcac tcccctctat tttccagatg atgtggaatg   1320
gggaccttct cctgcagagc tcccagggat gaacctcccc tcgggggttg tagaaaggca   1380
tacctctaga aggtggggcg gggaggagca ggagcatttt tctcctggtg ttttaaatt   1440
```

gtcttttagga ctttaagtgg ttcagaatc attgatccag agcctttctg gggaaggggt 1500
agtgttgcca ggtaatttgg gagaacaggc aagatggaag ggccctctgg ctgctagaga 1560
agaatatattt cttttcctct gattctatca ggatcacctc tattgagggc atcagcaaaa 1620
tctactggaa tgcaaagctc ctctgttcc aggccttgag ggatgctatt taactgtctg 1680
tgctcctggg cctttggggg caaggtcagg ggagaagaac ggtgggcgcc atggtcggtg 1740
atggtgagaa catggctgct taggaattca gagggccttg cctcccttgt ctcatattat 1800
acaacccttc ggggagctca ctggggacag gctgcttttc cctatttgga gataaggaaa 1860
ccaaggcaaa gagagatagg gcacaggcag tatgacaaga tatgtaggag atttggggct 1920
agaaaccagg tcttgtacct ccagtaaaa gcggtgcttt tgcccttttg ccagaagcaa 1980
tagatccttt gatcctgaga tggagataag caccctgttt agaaaaggcc tactgagaa 2040
gacagggtctg ggctgggtcc ctgctgggtg atttaggctt gtgatggaaa gtcttctcc 2100
aatggggagt gaagacactc gctctgactg gagaggctaa ccctgctgct cactcatagg 2160
gcagcgttgg gtgggtgact ttccctcact cagccttggg ttccatcaac ctaaaatgg 2220
ggataattat cgtatctacc tcaagattgt tttgtcagga gggatccatc aagccttgtg 2280
catgagttcc acatggcaca gcgtgcacag taaacactca atgttaattt ttcaacgttc 2340
cagtggagct tgctaaggaa ctctgttggg cacagggtgcc cagaggattc atggagcagc 2400
cagtcctggg gaatgtgagt gggtagcgag ctgcctgtg ctggggcagg tgatgtgtca 2460
aagcagcaac tgctaggggt ttgccttctt cccctcatgt gcattctggc aggcaaaggg 2520
ggtttcttcc tttctctctt gtctctctgg tgtatagtgg ggttctgggg gatctggaga 2580
ccaccctttt tgttcccagg cagccacggt attgacagtg ggccatacca tgcagtttaa 2640
aatgtatctt tgagttgaaa ttttgggtgg ttccttattc tttttctct cttcactgtc 2700
cttccaaact cacttttctt gtgtcccgac cgcattttgt gaatcatcct tactcccttt 2760
aagttctcgc tttggatttc accaggtggg ctagatgggt ccatttact tccactgttt 2820
gatgcggctg gtaatgtttg actcacctgt tacgtgttat ttcactgggt tcttgatttt 2880
acatctttct catcagtac ctgggcttga tgaaattagc tttcattaag tcctattttt 2940
ttttcaattt tgcacctta cctcttttct ttctcttgaa tgccatcatt gtgtgggtctt 3000
atgtaccctt catccactct gaagtccttg cttgactgat tgctttctat tagcagaaag 3060
aaaacaggtc catcctatgt atctgagaaa caacatcaac accctctcgt atgtgggttg 3120
tattccctga cgcggcggac atttttgcag cagaaatttc tccatcactg tccagattct 3180

ggccctggtg ggcaggtctc catgacacct ttagtccctt tgttcaacat tcttaaacca 3240
tggacctttt tgtttgtttg tggccggggg aggtggtgag aaacgttact tgaagcttga 3300
tcattctttc aatttcattt gtttctttat ttttaaatctg ttagatgcaa attgaaatgc 3360
aatgcttttt gaaaatcagc aatagtgtct gtagtatatg atgctgtcac aaaatctcaa 3420
taaattgatc ctgctgcat tccttccaaa t 3451

<210> 1513

<211> 3029

<212> DNA

<213> Homo sapiens

<400> 1513

agtagagtgt gtctgggtca gctgagtgc tacatcaaag ctcccagcct tgaaaaacac 60
atgctgttcc caggcctcaa gatattgaaa cattaattag ataatttaaa gtagcgTTTT 120
cttctacaat gtctgaagaa gtgaactatg cgacactcac atttcaggat tctgctggag 180
caaggaataa ccgagatgga aataacctaa gaaaaagagg gcatccagct ccatctccca 240
tttggcgtca tgctgctctg ggtctggtaa ctctttgcct gatgttgctg attgggctgg 300
tgacgttggg gatgatgttt ttgcagatat ctaatgacat taactcagat tcagagaaat 360
tgagtcaact tcagaaaacc atccaacagc agcaggataa cttatcccag caactgggca 420
actccaacaa cttgtccatg gaggaggaat ttctcaagtc acagatctcc agtctactga 480
agaggcagga acaaatggcc atcaaactgt gccaaagagct aatcattcat acttcagacc 540
acagatgtaa tccatgtcct aagatgtggc aatggtacca aaatagttgc tactatttta 600
caacaaatga ggagaaaacc tgggctaaca gtagaaagga ctgcatagac aagaactcca 660
ccctagttaa gatagacagt ttggaagaaa aggattttct tatgtcacag ccattactca 720
tgttttcggt cttttggctg ggattatcat gggactcctc tggcagaagt tggttctggg 780
aagatggctc tgttccctct ccctccttgt acgtctctaa ctattgaggg taaacacaag 840
ctttccatgg aatcctggga aaattaataa tgattgtgag aattataaat acagacataa 900
aaagaggagt acaacatact gagaaaagag ctccagtaac aaatattgaa aggaggtata 960

gttcatttca tctctgtgac aaatttatag caaggcactg aattttatct tttggtagaa 1020
atgtgtttat ttaacacaca cacacaccta atactacatt caaagtatct tataaatact 1080
aaccccttgaa gaaagcagtt atattcccat tttataggta gaaatattat aatagagaga 1140
ttaagtaact tgcctgaggt cactcagctc ataaattgca ctttagggat tgtgcactca 1200
gtcactcagc tattctgact ctccagcacc tacaatccaa aagggtgctg ctggtcataa 1260
gaacacatat caacacattt atttatacta aataactgtc aaccattttc taacaaaaag 1320
taagactgaa ttgactgatt agttcaacaa ttagtgtcat gttgaggact tgccaattac 1380
aatatacggc aagtgtcttt tatgaattaa aatgaactaa accttccact tcagggtttg 1440
gatgaaacta tttaaaggac aaatagaata tataacactt ggaaaatttc aattttttta 1500
actattttaa gttatgaaaa aatagacgtc aacaaaaatg tgtaagggga tattaggttt 1560
gctaaattct ttcacagact ataaaacaaa aaattttgag gaacacctct catcataact 1620
acattttaat gaaacaactg tattaatatt ttaaataata tagtattttt ctattagata 1680
aaatttaaga tctttggcat cttaatggat ttttaaactt tttattgata cataagagat 1740
gtatatgttt tggggtatat gtgataattt gatacattca gatagtgtgt aaagatcaaa 1800
taagtggaat tgggatatcg atcactttaa atatttatct tttctttatg ctaggagcat 1860
tcaaattatt attttctcat tattgtgaaa tgtacagtag attattgtta attgtattca 1920
ccctaataat ctatgaaaca ctaggtctta cttcttctat ctaacagaat atttgtattc 1980
ataatggctt tttatctacc ttcttcccc aacaaatcat tatccacccc cctccctcct 2040
gtttcactct ttaaagcatg ttgtcaacgt tttcttaaac tgaataataa tcaactcatct 2100
tctgtcaaag atgcatgct tcagctgtga ctcagcagtt ccttaaataa caaacaatgg 2160
taggtctatt attttctccc tggatacact ttatcttcat ccatttccca atgttttgct 2220
atggctatct ctactcaaac actaatcccc cattttctaa tcaccattat taatcataatc 2280
aagtcaatta gtttggtttc aactaataa taatgacaaa aagcacatgc agagtaatac 2340
acaaacaaaa aaagtgcagc ttactttttt gtgacaagag caatattggg tatgaactga 2400
ttaatattaa tctgaggtgt tgctactaga ctgagggttt ccaggagtag tactatgaca 2460
tcatgtaaac acattcagtt ttcatgttgg aatctaagat gtgtcccttc tcccaaaggg 2520
attttaatca ttcttggcct ctctactcac tcttaataca agtgtggagg aggtggcccc 2580
cacagcaggg tttggaacct acagaccctg gcccctgaga catgcagctg tcagacaagc 2640
cagcatgtca aacacaggtt agagagactg agcttccaga ttgcatagcc atttccttga 2700

ctactgagta aaggccaagg ctaagattta gtaagcctag ccctgaagca agcaaagaat 2760
atggcagtgt aatgcaggtc atttagaaaa aaacaatggt gggcacaaag aaaatttaga 2820
tctgacaagt ataattttct aaagacatta tttcaggatt aacatcaatt tcttagcaga 2880
ggaaatgaat actattgtca gaaccataatc tatatagtca atcatttcct cttttaacgt 2940
ctgtcttggt ctctttttac ccaccacata tgtataacta tgtgaaaaat tatatttggtg 3000
cataataaaa tgtgataact ttttacaac 3029

<210> 1514

<211> 3154

<212> DNA

<213> Homo sapiens

<400> 1514

gtgcggccgc gctgcctcca ggaagcctca cgggccttcg tctgccgggc cgcggcgccg 60
gctcccagga tgcagtgtgg accggccggg cgctgacgga ggcgccgccc tggccccaag 120
attccagatg ttctgtgga cccagttcca ggctcggggc cccagttcc cgccccagac 180
ctcttgatgc agatcaagca ggagggtgag ctccagctcc aggagcagca ggccctgggc 240
gtggaggcgt gggcagccgg gcagccagat attggggagg agccctgggg cctcagccag 300
ctggattccg gagcaggaga catctccacg gatgccacct ctggtgtcca ttccaacttt 360
tccaccacca tcccgccac ctcttgcaa acggatctcc ctccccacca tccctcttca 420
gcatgctcgg acgggaccct gaagctcaac acagcagcct ccacggaaga tgtaaaaatt 480
gtaataaaaa cagaagtcca ggaagaggag gtggtggcca caccgtaca tcctactgac 540
ctagaggctc acgggaccct gtttggacca ggccaagcca cacggttctt ccctagtctt 600
gcccaggaag gagcctggga aagccagggc agctccttcc ccagccagga cctgtgtctg 660
gggctgcgag agcccgcccg gcctgagagg gacatgggtg agctcagtcc tgctgtggcc 720
caggaggaga cccctcctgg ggactggctc ttcggagggg tccggtgggg ctggaatttc 780
cggtgtaaac cgccagtggg cctgaacccg aggacggggc ccgaggggct tccttactcc 840
tccccggaca acggagaggc catcttggac ccagccagg cccaaggcc attcaacgaa 900

ccctgtaaat accctggccg gaccaaaggc tttggccaca agccagggt gaagaagcac 960
cccgcggcgc cccccggggg cgggcccttc acctgcgcca cgtgtgggaa gagcttccag 1020
ctgcaagtca gcctgagcgc gcaccagcgc agctgtgggg cgcccgacgg gtcgggcccc 1080
ggcacaggcg gtggcggcag cggcagtggc ggccggcggtg gcggcagcgg tgggggcagc 1140
gcacgggatg gcagcgccct tcggtgtggg gagtgcggcc gttgcttcac gcgccccgcg 1200
cacctcatcc gccatcgcat gctgcacacc ggcgagcggc cttccccctg caccgagtgt 1260
gagaagcgct tcaccgaacg ctccaagctc atcgaccact accgaacgca cacgggcgtg 1320
cggcccttca cctgcaccgt ctgcggcaaa agcttcatcc gcaaggacca cctccgcaag 1380
caccagcgca accatgcagc gggcgccaag accccggccc gaggccagcc actcccgacg 1440
ccgcccgcac ctctgatcc ctccaagagc cccgcctcca aaggacctt ggcctccaca 1500
gaccttgtga ccgactggac ttgtggcctc agcgctcctgg gaccaccga tggcggggac 1560
atgtgagcgc ctccagcccc atagcccctg ccggccgcac gtgtaaaaag ccccggtgtg 1620
aggcagcagg gcggcggtga agcttcaggc agacgcggga cggggagaac caaatgtcca 1680
agttgctgaa ctgatgatca ctggagaaag agaaactatc caccaggaca gctgccacct 1740
ctaaaccaag tagaattctc tgtgaaatgg gagcgccgta gaattttaag taatttaatt 1800
gcaaacctgt tttgtttttt gttttttgtt tttttttaat tcttgaggaa aaagctggag 1860
aatagtaata gggctattta aattttgtag gtacttttgg ttttcagggc gtgcatttct 1920
gtcactatct cactgagtct gatagtgtgt tggaaaggtg gccagttggg gacccttggc 1980
ccactgactc ctggggatgg ggtcctgtgt gtgcccctgc tctgcccagt tgggctgagt 2040
gggcctagcg caccaagccc ctgggcagtg agggccattg ggtcccttgg agcacacctc 2100
agtgcagcag gaaggacccc tccgggagta gcggttgcatttccagctt gcctctcctg 2160
aaaaggcccc ccaaaagtgc tggccccaac ttttctctat tttgggcat ctgtggtacc 2220
cgtcccaagg gcacttggtg gtgtccccta gtgtgtgact ccctggcctc ataaggacga 2280
gttgtctgaa atcccagcgt taggtctggg gagatggaga agctgaaact ggggagctgc 2340
accacaaacg tctagctctc agcagagctg ggagcaaagc ctggccgccc accccaacct 2400
ggggctgcct cccactccgt gagatgcttc tgtctcctgt tcactttgtg tggtagtctc 2460
ttattttcaa aatgcatctc atttgatcat tactgtgacc ttgggaagca gcaggacagg 2520
gatttctttt tagaggtgca aactgctcag aggggacaca cctcagcctc tcaactgtggg 2580
tacacgtggc gtgcatgag tggggaagag caacaggcga gatgcctcat tcaactggaa 2640

catcactgtg ggtgaacaga gatttccagg ttttcctct taaaatattt gtccacacc 2700
 gacaagagtc cagtcaccag gcctcaaagg aacttctgct ttagcagcc gcctcccctg 2760
 tgccccagcc tccttaatgt gtgcactctc agagggcaca gctcgcgagg ctgggtttgg 2820
 gggccaagtg gcttgttcat tccagcatct aacatcataa aggtgggccc agatttcttg 2880
 attcgaccac agtgctgttc ctaccacaca aatatccatt cctgttttgt tgaagcagcc 2940
 actggccctc ttgtttccc tgcagacgga gggacctggc agtgcccatt cattcagccc 3000
 cctcatgcat acttttatta ggcgatagac tagttaagaa aattgtttct atgtactgta 3060
 tattttgtac ctgtttacac ttctaataatt gatataactg atattttgaa aaataagaga 3120
 aaacatcctg ttaaaataaa acctaaccag cacc 3154

<210> 1515

<211> 1859

<212> DNA

<213> Homo sapiens

<400> 1515

actctttttt ttttttaaga cagtctggct ctgtagccca ggctggagtg cagtggcgcg 60
 atctcggctc actgcaacct ccgcctcccg ggttcaagca gttctgcctc agcctcccga 120
 agggcgccac catgcctggc taatttttgc atttttagta gagacagggt ttcgcatgt 180
 tggccaggct ggtctcgaac tcctgacctc aagctatctg ccgcctcgg cctcccagag 240
 tgccgagatt acaggcgtga gccaccgcgc ccggcctacc cttgaagacc ccgcagccaa 300
 ggtcctccgg ccccgctctg cgcggcgctc tggctcttggg gctccggact ctgtcatgcc 360
 gggcaggggc cagtccgatc cttgcacctc tgcttggcac cgtccctgga gccttggcgt 420
 cctggcctct cctccccgcg ggctggagggt ggagtggccg ggccggaacc agtgcgcaaa 480
 gcagatggcg agcgcgagg tcggttcggc cccgccgcgc ctcaaggcag cagccacct 540
 ggggaagggt gatgccgaa gaggcgtcgc ctgcgggtca ccagaggac acccggcggg 600
 gaattccgag ggtgggagtg aggagagagc gaccgcgcgg tgtctcagag cgcggcccgg 660
 agccgcacta agagcgctgg acggcgggag agaggctcgg aggaccggta gctcccagca 720

aagcggccca gcggatgtcg ggagctatct tcgggcccct ggagggcccg agctccctgg 780
atgccccgag catccacccg ctggtgtgcc cgctgtgcc a cgtgcagtac gagcgcccgt 840
gtctttctgga ctgtttccac gactttctgtg ccggctgcct gcgtggccgc gcgaccgacg 900
gccgcctcac ctgcccgtg tgccaacacc agacgggtgct gaagggtccc agcgggctcc 960
cgccggtgga ccggctgctg cagttcctgg tggacagctc aggggatggc gtggaggcgg 1020
tgcgctgtgc caactgtgac ctggagtga gcgagcaggc aggggcggca gggcgggtgg 1080
gtgaggagca gaggggtacc ggttgcacag tccccaatgc ttgcacatgc actcagcatg 1140
tcttcagagg acgacctggc agtggattct ccagcacctc cctagggcac cttggcccca 1200
aatgtgaacc ccattatacc ggtggggaga ctgaggcca gaacaaggga cttgagccag 1260
tgtccagaca gtggcagagg ctaaggccat tcgatctggg gagagctcac tggccccaa 1320
ttcagggtgg agttgtggac ctgcacagga ggggcagtcc agtttgcagg cctgggccga 1380
ccctgaaggg cctctgctac ccaagtggca tagaagcagc tacagcccag gggaggtggg 1440
gacagcatgc tgttcctct gggctgtaaa aggcacaggg gactctggcc tgcggaggcc 1500
agaaaaatga tcgggaatcc caggaggacg gcccgactgg ggcaaaagct ccagcgttct 1560
ggacaagtgc tgagcaatgt gtgaccaga cgtacagaga ggattagcag gaggtaggga 1620
ctgcaggtag ggcctgttat gtccatcatt gcatgcgtcc ataccagggc tgcaggccaa 1680
gccctggaat cccagccctg ggtcaggctt ggggaggaga accttaaggc ctcactgt 1740
cttccccctc ccccgcccc aagtgtgact ccagatggcc aggggtgtaca ccacctttcg 1800
gccactattg agtgtgcaa gggggccgtg agaggccctc acaccctttt gttaaaagt 1859

<210> 1516

<211> 2376

<212> DNA

<213> Homo sapiens

<400> 1516

ccaaaaaatc tatgctggag agaaacctca caagtatgat gagtgtgga gaacctttac 60
ccaggcctct cacctcacta tacatcagat tatccatact ggagagaaac catatgaata 120

tgacatatat ggcaaagtct tcagtcaaaa ttcacatttc aaaagttatc ataggatttg 180
tactgaagag aagccttaca aatgtgtgtg gcaaggctcct cagtcaaaat tcgcaccttg 240
taaatacatca gagaattcat actggagaga aatcctacag atgtcatgaa tgtggcaaag 300
ccittactca aggctcacgc ttcattaatc atcagatagt tcatactgga gagaactttc 360
caaatgtact gaatgtagca aggcttttta gaatggccct aaactcagga ctcaccaa 420
agatcatact tgtaaatgca atgaatgtag cagtgtttta aagtagtgct tgctactcat 480
tagataagag tatctaatat atcttggggc aaaggcacac aaatgcaatg tctgtgacaa 540
ggattttatc tgaggatcaa aagtggggga acagaataat tcgtactggg gagaaacctt 600
agaaatccaa tgagcatggg aaaaacttta ccatgagttc aagtactaca agacatcaga 660
gagttcatat tgaagagaaa ccatgtaaat ataaggtagt tggcagaggc tcttttcagg 720
tttcacagtg cactggacat cagagtatac atcttttgcc gggcgcggtg gctcacgcct 780
gtaatcccag cactttcggg aggctgaggt ggggtggatca cctgaggtca ggagtttgaa 840
accaccctgg ccgacatggc gaaacgtgt ctctattaag aatacaaaaa ttggctgggc 900
gtgggtgtag gtgcctgtga tcccagctac tcaggaggct gaggcacgag aattgcttga 960
gcctggggaga tggaggttgc ggtgagctga gatcatgcca ctgcacgcca gcctgggcga 1020
cagaggaaga ctccgtctca aaaaacaaaa caaaacaaaa aaacagagta tacatctttt 1080
agagaaatca aagtaacatg catgctaaag cttttttttt ttttttgaga tggagtcttg 1140
cactgtcgcc caggttggag tgcattggcc cgatcttggc tcaccgcaac ctccgcctcc 1200
tggattccag caattctgcc tcggcctctc aagtggctgg gactacaggc gcgtgccacc 1260
acgcccgggtt aattttttgt attttttggg agatacgggg tttcgccatg tcggccaggc 1320
tggctctgaa ctctgacct cgtgatctgc ctgcctcagc ctcccaaagt gctgggatta 1380
caggcttgag ctctgcgcc cagcccatgc taagtctttt acccagtggg caaaactggc 1440
acaacacagg atttatactg gagagcaacc tcacaaatgt aatgaaagtg gtaaggcttt 1500
ttatcaaagtg tccttgtctt tggggctcatg agaaaattca tacagaatct attaaaaatg 1560
tactaaacat ggaaagacct ttaagcaaca gtgatgtgat gaaggtggta gttttttaaa 1620
tgaactccca taagagtcta cacaccatag aactcatacc aggaatcaca aagtctctaa 1680
atttccaaag ttaactggaa atattacaaa ctgcagaata attccaggcc aaaatatgtt 1740
aaattcataa catgatgtat atcaaaggaa aaaaggacat gtggaaatga cacattatct 1800
tcagtgtata aaatattcat ttatgtgaag tttcttggaa aggctacact actattactg 1860

gtttccgtct gatgtttgag atctgttgat tttatgcttt tcttacaggc ctttcattat 1920
 gatctttggg aaggaatcaa taaaatgata gggcctactt cattaggtgt gggttcattcc 1980
 tattcatgct ccctggaaga acaagaatgc tgaattttga aatttaatat tgtatgaatt 2040
 agcatcaggg agaggtggag aaaaatacaa aactaaaagt catgcttatt gtgttcagtg 2100
 tgcccttctc cagagggccca ctggcttata ggaaaggatt gctgctctac cagttgacca 2160
 ggagatggca cgccaggaca ttaagacact ggagttttgt ttcttttttt ttttttttg 2220
 agactctgcc tcaaaaaaaaa accaaaccaa accaaagaac cagaatagca tgtgcacgta 2280
 tacacagacg tttcacaact ggcattatgt ttgtctactg ttttatttac aatgtatcac 2340
 aagttttatg ctttaataaa atttaatcat aacttc 2376

<210> 1517

<211> 3671

<212> DNA

<213> Homo sapiens

<400> 1517

tgatgacagg agggcagagt gagggcttgg cctggctctt gcctcagacc aagcattggt 60
 gcgggaaggg ttagattgga gagatgagga ggcatttggg ggcacctaga gccgtgctct 120
 atggcagaca gatccttcaa ccagcgggtgg aagccccaag ctcttgctct gtctccgata 180
 ccacctggcc aagtggccat gggcggttca ctgagcttct agggccttac ttctctcttt 240
 tggaaaaggg ggtctacgag gaatggtctt tggggtctgt gccctctcc gattgtgtgg 300
 gtcagagggt gcaggaagg caggcacaga agcagaagtc caagatggag gagtttgagt 360
 gcaggtggct cccccaccag tgtcccctgg ggctgggatg gttccccatc tgggaggggc 420
 ctcaacaaga ctctcggcc cgcactaagg aagccgtccc caaagatgcc cccagcagc 480
 aggctgcttc aggatggcca caggctccca gacctgaaga aaagaagggc acatgcaaga 540
 aggaccacca caagagaggc cagcactcaa ccagccactg tcattagact ttccatttc 600
 caggcagaga cccccaccag gcacaggcac agaggtagaa actccttctg aaggggtcac 660
 agtacgcaag gggtaggacc tgcatttggga ccaggcggtc tgggccttaa ctgccaccct 720

ccaccatctc cctagtgtcc atttttctgg tacaataaca ctagccacaa agagctacta 780
aaacttaggt ttaaattaa gttggctggg tgcggtggct cacgcctgta atcccaacac 840
tttgggaggc cgaggtggga ggatcacttg aggtcaggag ttcgagaccc gcctggccaa 900
catggtgaaa ccccgctctc actaaaaata taaaaatgag ccgggcgtgg tgcccggcat 960
ctataatccc agctactcgg gaggtgagg caagagaatc acttgaaccc aggaggcaga 1020
ggttgcagtg agccgagatc acaccactat actccagcct ggataacaga gtgagactct 1080
gtctcaaaaa taagaagaag aataagaaga agtaaaaaga aaatttcagt tcctttagaa 1140
acactggcca catttcagtg actcagtaac catgtgtggc aagtggctat tgccagcaca 1200
gaatgtagaa cagtcaccgt ggaaatttct tacgggctgg tgctgttcca gtgcctaaag 1260
gaagagggct gttactgggg ggtgcacggt ccacacactc acacatgcgc accactcctt 1320
cctggagaca cccatggggg cagtgtccct gtgcttcatt ctctgccagt cttgctcagc 1380
ccagaagctg gtggcttttc ctctcacttc ctccccctgc ttcccccca ggggatgaca 1440
ggtgcaaagg ctcacgcac tcggccctcc aggtgcagca ctgatctgtg cactcagcct 1500
gcacaacctg ctccccctcg taatcaggct gccattgccc ctgagtgtga tgctagtccc 1560
aggaggacag agttgaggga tcttaacatg gaataattgg gagaggacat caatgtggac 1620
cctatgctaa ggccccctgtc tcatcagagg gcctgccccg gggcccccat gagctggctc 1680
aggagacatc tagtagaact ctgcctccat ggctgcac cctgggcctg cccaggcag 1740
acggacatgc agcagtgacc agattgaggc tgggcagagt gagatagggt cccctgggtg 1800
cccagccctt caccaaagcc aagactttgg gaactggggg ggcgggggat ggactgggct 1860
gcaggaagga ggatagagt ggggttgagt gtttttggcc agggcccatc cgtttgtcat 1920
ggccacagtc cctgcagctt aataacaatca ggtgggtttg aatgggacag aaatcaggca 1980
ttacaatgta cagacagcag ctctctgacc tttgggagtt agctgccctg ttctcaacca 2040
tcaaactttt atttttccat ccttcccacc ttcccactca ctatggaagc ctcttgattc 2100
tcttaactaa tggccagaaa ggggccacca gtggccacaa gagtaagggt gcctgctctc 2160
agggagggca agagtggagt ggccctgaac tgggaagggt ggcccatgg ctggggccgc 2220
ccccccact catctgagaa gccaggctag ggtcagagtc tattcccctc ctgacccct 2280
cccaaaggat atgctccttg tggagtgttg ggtctgtgct tatcccagat gcctcccaa 2340
gcagccaaat gtttcagac acaaagccta ggtaggtcca tgtgtcattc cagtcaagag 2400
cgcagggagt agctgagccc ctctagaacc aaacttgatg actcctggag ccacagcctc 2460

agggccaggg ctacagagaa gcttctggat gccctgactt ccatctgtca cctcatgcca 2520
ataaggaaag ttctgggtgg atctggccga ggcggctggg gtacagaagg gggaccaga 2580
gatggggcag ccagaccctc tgccctctcc tcatcccat caggtagatt ctgcgaaccc 2640
ctgccatgcc ccggggatcc tgtgacttcg tgacattaca cagcagtcac gtcacctccc 2700
aactatcctg atgttttctt tgttgtcttt cttttcagtg tcctcactgt atgcccactt 2760
taccacttc ccacctccgg tccccctcat gctgtgcatg gatcccgaac ctctcccage 2820
ccctttctga gtccccctag cagggccatg caagacagct agctgggaga aatgaaagca 2880
cgcccaggtc ctagagagct ccgagactct tcatcctggc tgttctcact cataaaccag 2940
gtagcctggg tcccccttca ggaagatgca atctgatccc ctttatgaag ggtcctcctt 3000
tccacctgga cttaccttt ctatgaacat ccatctcatc tgggtggggg tgcagatc 3060
actcttagta gagcctcatt ctcacctgt aacatggggc tgcacggacc ttcctgggcc 3120
acacagctgg tggcaagtgg cacctggctg tgcccatctt cagaattctg tcagaataaa 3180
tgttcctaga gaaggctaga cactggatag tttttagagt ggggagtagt tcttttctag 3240
aaaggctggg tggtgaccaa ccactctggg aacagctcct tcttcccaca tccaggtgtc 3300
caccagcc tggaatttg atcaggatcc cgtcttgaat tattatgggt tgtgatcagg 3360
gatctcccct gcttctctc ttttcccac tctggacttc tcatttcagt ttaatctgtt 3420
aatttctgtt cttatttcac tttgcagact atttgccgt ttcacaagac ataattttta 3480
tcaactagct ctttaagagag gcatagcaaa gtgggggttg ctaccatttc tagagagaga 3540
ggacacagtc ccggcctggg ctgccccgc tccagtcaat gctcactgaa agtctgtctt 3600
agctgcctgt ttgaatgact gttctttttc tcatttttaa ttcttggact catgtcctca 3660
ttgcttcact c 3671

<210> 1518

<211> 3755

<212> DNA

<213> Homo sapiens

<400> 1518

atgagcacgt ggtgtagtag cagctgcca ctgtggaccc cttctccacc cacttgatt 60
tgtttcctgc tctgacttc cagcaaaact gggcagcagg cagcatttca cagacagcct 120
cttctgcta gatgctctcc acagtcaagt agagtcccc cacttcagtt tctaccct 180
ctggctcccc agggctcccc gacatcaaag cttctacgag aaagctccgc agtgggggct 240
gcttaccac atagctgtcc tcaagccccg ggggaattaat tccttgacct ccctgcctc 300
agatcctgta ttgatgggaa actcatactt gatagatgag tgagctgact ggcagcgaag 360
aggacataga ggctcttcca gggcctcca gtgagtcagc ctgcacagct gccctagggc 420
ccaagctgt gtgattcatg tgaccactga ggcctcagct gcctcagaca gctcaggctg 480
tgccatgagt cacaccttg cttcatggcc tggcccctgg agctgaagggt gtgtcacgcc 540
acagttactc tcttgttcac ttgtattcat ggtcttcaac aaccaggaaa ggcaaggctg 600
gacttcagct cttgagaaga cagggcccat aggactagct tgttaactgc tggaaaaacc 660
acatactggg gctctgcaga cccacagggt agagaatccc aggagccagg acttctgttt 720
gaccactctt caaatctgct agagccagggt agagggcacg gcatggccag agggccccac 780
tcacagagaa ttctgatact ctgttgactg gactcacct cagacgggag tagcaattcg 840
caaagcaa at gctgtgtttt ctgagagacc tgcccaacat ttccatctgc catggtgggc 900
ttgtgccaga agcccaaca agacacactg ggacttctcc gagggccctc taggaagggg 960
ctgccacaac cattgtccct acaagagggt ccatgtggcc ccagtgagag gcagtggaaa 1020
aaccgtgaag gggttcttgg gaaagcagggt agcttttggtg gggaccaggt tctatcagca 1080
aaccttttga gcacctgtg ctccatgtac tcttgggaaa gcaacgatta ataagacca 1140
gtcctgccct cgaggagcca gctcatggtt tgggtgaggaa gcccaggcac acggctaacc 1200
ctggagtaag ccagcctgtt atgtgataca gggagggcag agtgctgaag gccgggaaag 1260
gaagagcagg agctgggcct tgagcagact gtttggtgtg gccgatggcc caagagccaa 1320
ccagagggtt tgttgagatt ttcaaccag gaggtgggca gaggggtggc actgggggca 1380
gaaatggagt cactgtaagg gaggagtggg ctttagggaa gagatggcag ggcaggtggg 1440
aatccagagc caagacacgt gcgagagggt ggggttgagt tcaagcgtca gcagctggaa 1500
gcggaagcaa ccagagtggg ggattcttgg aagggggaat gacctaaagc ctaagatgaa 1560
gtctctggc cctgcagcag tggcttctct ggatgatgac cattttaatg gcagagctgt 1620
ctgcccctac tgtcctagag aggtgatact ggggcccact gaccaggggc ccactagagg 1680
acaacagagg catacatatg tttaaagcgt gagtgcctag cactgcatat atgcatattg 1740

ttgaatctct tcatgtgtcc tgtgaggtac ctgtttctat cccctctctc aagacaaggg 1800
aacttaaatc tcagagaggg gaagctgcca ccctgggtag cagcactggg aagggacaga 1860
atcaggactc tcacccagca gtgctgggggt ggacagcatg gctgtgtgcg ctgcaagccc 1920
tgacttcctg gcctgcagga gctgtctagg gagggcgtgt aggggagacg tgtccttggg 1980
aggtgtgtgt ctgtctccat tcagaggtgt gatagggaat tccctaactg cccccgccac 2040
ccagctcccc agtgactgct ttctctgaac caccttagtg aaattatcta ggagatcaga 2100
gacggcttgg cctgggacgg cttgggtctgg gacctgggat ggtcagaagc cccctcatg 2160
ccccgtcccc ttcttctc tcctctggga ggctggttcc tgacgctggc tctcacctc 2220
tgcctgcct ctgtcgcttc ctcttcccc ctccctggg tgcagataca gtacctggac 2280
tccatgaacg gggaggatct gcttctgaca ggggaggtga gctggcgccc tctagtggag 2340
aagaatcctc agagcatcct gaagccccat tctccgactt acaacgacga gggactttga 2400
tgggctgggc cctccgcacg gcccgccagc tggcttcgag gaacctccag gagagaagtg 2460
cctgttggtc caggaccctg cagaaagtgg cctgaactga cctctgaaca gcatctgtca 2520
aatacctggc ccattttgtg ttgagtttcc tcttagtgtg cccaggagtc tgatctgctg 2580
gggtacaggg ctgggagAAC ccctagctct cccgggggtgt cctctccctt aggggaagcc 2640
ccgagtgaga gtccccagc acacactccc caaccccc cagcaactac atgtgactga 2700
tagcttttcc caaaggccaa ggaagggatg gtgtaggttc aaaaggga cccccaggg 2760
cctgctgtgg cctaggagca gattgtaatg ctgccgagtc cggtcggtga ccacgcgttg 2820
tccctcggct ttcagccatg gggttgagtt ggccattaaa agaaacagag acttctctct 2880
gccatggccc ttctttattc cagggactta gaaacttgcc tgagatggtg gacgcagtaa 2940
tgagggcacc gcgcagctca gttagagacg gagaagggga agaggctggg atggtctctg 3000
ctgctcttgc ctctagtcca tggagatgtg tctctgttca ggccaagata cagccagcca 3060
ggcctgtcgt ctgggacca ggaggcctct gatgaccaag ggctttcaca tcctaagtca 3120
tttggaagga ggccttgaga acaaagtcac ctttgtcact cccagtgaac tgaatgagga 3180
acatgctgtc tcctgtcttg gcctccccct tcatgagata ctggggagaa gagaacatcc 3240
ctctggctt agttgtagca gaccagacc tgtgccagc tttgggtcccc cttcccaact 3300
tctgaagcac gtgctgcaga gccaccttgg tctgagcacc tgaggaccag cccctcctcc 3360
ctcagtgcgg gtcattctt gggggatttt cttaaagtga agaaaggggg tggggaacca 3420
tattgcccct cctccccca tcaaacttcc ttcatttaac ttgctataaa atgagtcata 3480

taaagaaact ctatatgggt gaggtatatc ccacttctgt gaaaacatta caaatcaaac 3540
 cgcttctctc agtttatatta agatgctttt gttgcgagcg gagctctaga gtgaagcctc 3600
 ctgtgtgtgt gtgagataat aacaccttgt aactcattac agctgggcac tatttacata 3660
 aaccagagct gagccaggca ggaatttgct gattaattta tttttaatgg agtgaagtat 3720
 accatgcacc aaaataaact ttactgtgtg tacct 3755

<210> 1519

<211> 3322

<212> DNA

<213> Homo sapiens

<400> 1519

ttttatattca gccaattaga agccccactc ggccacctgg cacctggctc ccgctctcct 60
 gctgtgggtc agtcttgatt tttcaaaggc acgggtcacc aagtcgctgc ccagttaggt 120
 ggctgaggga gaggctcgtg gagaggctcg tggagcgcct cgagcatctg agctttctca 180
 ggactcggag ctgtgctgtt ggcgtcagcg tgtgacacca agaacctcct cacttgggggt 240
 cagaaatctg cttgattcac ttagctgggt tgatgccagt cctccagcca cacacctgc 300
 cctcctcaca ctgtcctgag gatgccgggt tttcgtgtcc tgactcctgg gccatgtcta 360
 aaactgacag gtgattctgt tcttccgtcc cctgaggctt ccgaccaaga ccagatgttg 420
 cggatgaacc catctttcct ttccaacagg actccacctt ctctgccctt aaccgggtta 480
 agttgcacga gtgaacaatt tggttctcag cgatcccgac cctgcctcat cctggggggt 540
 gcatgggggg tgtcttctct gcatgggggg ccagcgcccc atgcaccggt ggccacaagc 600
 ccatgctggg cactgcccc aagacctcgc cctcgtcag tgctcagcgt ccgctgctgc 660
 tcagtgtccc ctccatgtcg cctctgccgt cccattgtta aaggctttct atgatctgtc 720
 gctgtgtttt ccctctagtc aggagtggca ggaaaggacg ccgacgagtg ttcagcctgt 780
 cggaggccga cagtcatggc ggccactggg tttagtgtc cgaacggcag ctgccacggc 840
 acctcacgca cagtcaattc aggcaggtct cccctgtgag ccgctcgggc cgcgacgtcc 900
 actcgccacg ctgcatttcc acagtcggca gggtcgcgc tggcaagggt ggccaagctg 960

ggcctgagca cagagccatt tgccaaggcg gcacttcccc attttcccc aaagttggtt 1020
ctccctgctc cctgtctggc ctcacctcat gtgaagacca gatccccggc ctttgacctt 1080
cgcgacagtc cttcaccttc gcgacagtcc ttctgagcca gacctgtaca gcctggaaac 1140
gctgtccttc tctgtgacgt gtgcaccagt gtcaggctcg gcccgggcca gaagcagatg 1200
ctcctgccaa gtccccaggg ggtcccccca gtttaggcca tgggggttgg gcggcagttg 1260
gctggcaaag tgagaatttg tagaaagcaa ccaagaagtc tcctcatttc ttttttcctt 1320
tcttcccccta gtcttgatct aagataagtg gcaaattcag tcctgttttg accggaagcc 1380
aagagccatt tccctcatag acacatggat ggatgtggcc ccaccatctc cttttctgag 1440
tggcacccac acagcagtga ggctgatcca tgggccacca cccagcagcc tggctcgctg 1500
tcggggccat ccctgctgcc tcccctatga cgcttcttct gtggtttctg atgcgctttt 1560
ctccattggc cgttgcgctt gtctgctggg agcctttgcc ttcttttctg ttgaaatcct 1620
attttctctg agctttgccc tccacttgct ctacaggtac catccttttc ttccccacaa 1680
cactcagccc caccttttcc cagcccagca caacaaatcc aagtttttgc tggaagtcac 1740
catttgcttg acaaggatgt gttaaggccc caccctaggc ctgcagatca gtttctgagg 1800
tgctggccag gcacatgggg gacctgctgc cttggtgtcc tctactggcca cagccacggg 1860
atgtctgtcc gctgcttatg gaaacgtggc cttcctgaat gtcccattac cccctcggt 1920
ctgtctcccc agcccgtggc caggaagtca gacttttctc caaatccctc atttcttgag 1980
cctggcctca acttgtggcc ctagagttca aaaacaccag caggcatgaa gccaaggctt 2040
caccagtaac ttttgcagct cagcacttga ctagaaaaaa gtgtcctcac tgggtaattt 2100
tccccccaat gaaaacctgg cagagttctc ctttttcacc tgccttgggt ggataccctt 2160
gtagatcaag ttcaggaagc agttcttaaa caacaacaag gccatgtcat aggtgatggg 2220
taagaagagg ttattttttc cctattttaa aagaggctac ttttagcggg gaaaccaacc 2280
cttttaataa aaattgttgg tccttttcct gaagaagaaa tcagttctgt gcgcatgcta 2340
ttgttagttg gtttgcctt tttgatatat ttgcctacaa ggtttccaca tccctgatta 2400
ttctcataac caaacacccc attagaggc agggaaacgaa gttggccagc ttctttgaat 2460
atctgcatgc aatgcagac ttgagcaaag agagaaaaca cttacatcga aattttaaga 2520
aaacgtgaag gtaacgcttg gctactttgt ctccagatgg taggacagtg ccatttgggg 2580
aattagtcat ttctaaactg cctcctcagc agcaaaattt atgtgtggat ccacatgtgt 2640
gtgagtttgt cacaggtctg ctcatgcccc ttccaagcaa gggcagaggc caccagagca 2700

ggtgagcact gctcagggaa ccacaggttc tgaggaacag caggcagatc gtgctaggtc 2760
 agggcgcacg cctgagctga aaccagccca gcaccgcaag ccataccttac tgaatggagc 2820
 aaatcagttg aaattcaaag aaaccagaat tcgcatgtag tgtttactca gcattttctgg 2880
 gctcagatca cacctcaaat cactttttcc actagtgttc accgatgccc attgccaccc 2940
 tcccagagcg aggaccaaag cctcatgcag tggtttcctc tagatctctc tctctctctc 3000
 tctcttttaa aaaagacatt aggaagaaat taattgggct gggcacggtg gttcacacct 3060
 gtgcacatcc cagcacttta agaggccaaa gcagaaggat tgcttgagcc caggagtcc 3120
 ataccagcct gggcaacgta atgagacccc gtctctacaa aaaactttta aaattagcca 3180
 ggtgtggtga cacgggcctg tagtcccagc tactcaggag gccgaagcag gaggatcact 3240
 tgagtccaga aggttgaggc tgcagtgagc tatgatcatg ccactgcact ccagcctggg 3300
 tgacagagtg agaccctgtc tc 3322

<210> 1520

<211> 3176

<212> DNA

<213> Homo sapiens

<400> 1520

ttagtaagga actctacca tttgggttca tggttcatt tggttgatgg gatattttgt 60
 caagattgga atttggtcca ggagagcatc aggggggttc ggttatatgg ggtgggggtg 120
 ggtcttgtgc cgcctttgca tcccagtac aaatgcgtgg tgactcctgg tggaggagc 180
 ccaagtctga acatatgtaa gatgggcctt gcctcactcc ctttgaagcc cagccgcagc 240
 cggagagcag taattgctgg ctttgattgc gcagacttca ctggtgggtt gggctgtgcc 300
 ggggctcgcc tggcctggcc cagcttcagc cgcagccccc cagtgaagcc ttagatgtgg 360
 gaaagctcca gcccctggag cctcatgcct gtggtttctt gaaaataatc tggactggac 420
 ctgttttata tctgtaaagc aacactacaa gtgatgatat agtgattaac acaatgctgt 480
 agtgttttcc tgtaaagc ggaatgggtg atttccagg agaataaaa atgaaattgt 540
 cattggagga cctcctcagt tgaaatcatt ctgtggctga tttcctccta tttgttttt 600

tgttggttgg ttggtttttg ctttttcagt agctaccag gtatacaaat agcttctttg 660
cagttctgat catcttttagg ggccgcattg ggcataattg gaataataat actagctaac 720
ctgcttgtag ggcttgctct gtgctgtgca ctttgtgagc actttaata taggagccaa 780
acctctcttt ccaaaagcct gaagggcagg tgtcctcgca gttcccattc catagatcac 840
catccttcca tggaaagtac tctgtggact gtaacttgcc atctagactt ttgtattcat 900
tattaaacta tgtcaaagt tctttttatt tctcttttac tttctttttc cattgaaatg 960
aaagtgtacg ataatccacc attatttaga atgagtttct aaaaggaaac ttgtgcttgt 1020
aacacggata gcacaatcac aagcacaag ttgtgggatt catctgaggc tgtcaaggga 1080
cccagggtga gaaggtgctt ccagcatcgc tgccaccaa ggaaagcagc ctccccaagt 1140
tcaaagcagc ggaagcaggt gctctctgga gtgaaggaa ggaactttgc catgctttta 1200
ctttcctttt gtctttgtct catcttgta caatgttaca ttttactttt aatcactttt 1260
taaaaaatct cagatcatta aagctttgag gatgtgggag ttctcttatt tgaaaatcat 1320
tatcaccaat atctggcaac attatttta catatttgct gagtgcctt tccgaggcta 1380
tcattagaga tccttgatgt taggaaggaa aaaaaatct tgaaaattgt aagatcttaa 1440
ggaaaaaggg agcggtttgt atcctctggg ctgtgagtgt gagcggacag agcacatagc 1500
gtcacgggag ttggcagtgc gttgggtaat gtgattatgt ctgtcctatg tagaatcata 1560
cagtggcttc ccacagtga ccaaaaacac caaacactgc agaattgacac atctttccct 1620
gatctggctg ttgccgcct tccctattca tgtttgcctg tttcctactg gtgtttttca 1680
aacttttttt ttgtttctgt ttaccatgac ccagagtatt cactacactt cacatcataa 1740
ctctgggcat acgtatacat ggaaccaaag taaaaatgtc actatattaa ctctgtagt 1800
tactctcagg atttttgact gatagggcaa ttcatttttag ccatcccaa attaacaaaa 1860
tggaattaatt aaatgcagag gttgtaagac atatatggta tggaatagag gttataatct 1920
taaggcctac ggcaaattca tattaatagc atttcatttg ttccttcttg aggtggaaaa 1980
cgaagctcat tccaacgtg caaagccaag gcagcgaccc caggacctt tctggagatg 2040
gaagcttggt gaaaaccag actgtctcca cggcctgccc agtcgacccc aaaggaacac 2100
tgacatcaat tttaccctga ggtcactgct agagacgtg atccataaag acaatcactg 2160
ccaaccctc tttcgtctac tgcaagagcc aagttccaaa ataaagcata aaaaggtttt 2220
ttaaaggaa atgtaaaagc acatgagaat gctagcaggc tgtggggcag ctgagcagct 2280
tttctcccc catatctgcg tgcacttccc agagcatctt gcatccaaac ctgtaacctt 2340

tcggcaagga cggtaacttg gctgcatttg cctgtcatgc gcaactggag ccagcaacca 2400
 gcacatccat cagcacccca gtggaggagt tcatggaaga gttccctctt tgtttctgct 2460
 tcatttttct ttcttttctt ttctcctaaa gcttttattt aacagtgcaa aaggatcggt 2520
 tttttttgct ttttttaaac ttgaattttt ttaatttaca ctttttagtt ttaattttct 2580
 tgtatatattt gctagctatg agcttttaaa taaaattgaa agttctggaa aagtttgaaa 2640
 taatgacata aaaagaagcc ttctttttct gagacagctt gtctggtaag tggcttctct 2700
 gtgaattgcc tgtaacacat agtggcttct ccgcccttgt aagggtgttca gtagagctaa 2760
 ataaatgtaa tagccaaacc cactctgttg gtagcaattg gcagccctat ttcagtttat 2820
 tttttcttct gttttcttct tttctttttt taaacagtaa accttaacag atgcgttcag 2880
 cagactgggtt tgcagtgaat tttcatttct ttccttatca cccccttgtt gtaaaaagcc 2940
 cagcacttga attgttatta ctttaaattgt tctgtatttg tatctgtttt tattagccaa 3000
 ttagtgggat tttatgccag ttgttaaaat gagcattgat gtacccattt tttaaaaaag 3060
 caaggcacag cctttgccc aactgtcat cctaacgttt gtcattccag tttgagttaa 3120
 tgtgctgagc atttttttaa aagaagcttt gtaataaaac atttttaaaa attgtc 3176

<210> 1521

<211> 3686

<212> DNA

<213> Homo sapiens

<400> 1521

tgtctaacca ctgggggttt ctactgggc ttgtgggatg atttcggagg tggcaggtgg 60
 aggggtgtct gcaggtccag aatgttcac cctgtgtctc agggaccatg tcagcccatc 120
 tctcccactc tctctccacc accttctct ctcttttcca ggccataggc ccatgctag 180
 tcccagagat ttccacccc caagacagag aaggagccc acatttcctc tctctacca 240
 cgtgccagca gcctgttta cccgtgcaca gtctctcagg cagagcccgg catgggcaat 300
 taccaccta tctctgggac ctcccaccc atctactgcc tacctgtgtg gtgaccgagc 360
 aaattcacta ccctctctgg tctctgcatt tactttctgt aaaggtggct ctgaggtgac 420

caagaggggtg cagggcacag tgacggatgt gctttggagc agtcggctat tgctgcataa 480
cacagcatcc caaaacagtg gtttacagcc ccagtaatta acctactcat gattctgcac 540
tttgggctgg gctcagctgg gtggttctgc tgctgtccct ggggctcacc catgtggtgc 600
tcatgggagc tcagctgcac ctgcatagtc aggggggtccc ttggccagga ctgttggcag 660
caggggtcag attttcctca tggcctctcc agcaggccag cccgggtttc tcctggtggc 720
tgggagccag gagagcggct cccatgcaga gtgctggttt cacatttgtg ggtggcccat 780
ccgttgaggc cagtcacgtg gccaggccca ggaccagatg ggagaggacc gcacaagtgc 840
agcgtgagct gtgggaggtg tggctgacca cgcttagaga gtgtggtgcc aggaaagatc 900
tgatgtgtca ccattctata tctgtgatgg gcagacgcag gcaggtaaaa ggggccctgg 960
ggacttaccg agcccctgcc tattggccag gcaactgtgat tgtcctcggt gccatgtgcc 1020
atggaagccc tctcagaggt cgaggggagg caggtggaga cagagcctct gtaggccttt 1080
caagctgtag cccagagcc cagaggcagc cgaattcatg tgtgcagtca gagagcactt 1140
agtgggcact gtagtcaatc agtgagcgt tactggacac cacaggcagc aagcatttac 1200
tgagtacctc tggcagttga tgcatacttc ctgagtacct gttcatagca ggcttagctc 1260
tggatgtggg gtggtgagga atcccacagg ctgagaggtg gcctgggagc tttccagggg 1320
gcctgaagca ggaggggctg cctgagtggg tcagcagccc agcccagtgc cctacgcagc 1380
cctgccaca cccccaacc agcctctgtc tcccagtc catccccac accctggtcc 1440
ctcctacttt gtgcctcgag gacactgcc cgctgccctc ctcacttccc agcgtctgct 1500
gtccccctccg ctgctgctgc ccggcaggat tgctctgtgt ctcattccag tttgtccctg 1560
cagagttcct cgcctctccc cggaaccgcc agcctcatgc cgcattctag aggctttttt 1620
tttctctctt ttttttttt ttgagatgga gtctcgctct gtcaccag ctggagtgcg 1680
gtggtgcgat ctcggttcgg tgtaacctct gcctgtcagg ttcaagcgat tatcccgctt 1740
cagcctcccg agtaggtggg actgcaggtg cctgccacct cgcccggcta atttttgtat 1800
ttttagtaga gttggaattt cagcatgttg gtcagtcagg tctcgaactc ccgacctcag 1860
gtgatctgcc cgcctcggcc tcccaaagtc ctgggattat aggcatgagc cactgcgccc 1920
ggcctcagag gctttcattc ccacttttcc cccaaaactg cgcctctttg gggatcatcag 1980
tgaccttcgc aggggtcaagt catccccctc tcctgtccca ggaccttaag cactgccctg 2040
ttttacagaa gaggaaactg aggccccgag aggtaaggca gccagctcag ggtcatcgcc 2100
cacgcccaga aatgccagga ttcccaccg gacctctgac caccaagctc caccttagtc 2160

tggccccgggg tcatccctca ggtgctgcct catgccttgg gtctgtctct cagaccaccc 2220
 tggcccttgc ccctgctccc cagcctgact gaagctgggc caggcagaga ctgaagactg 2280
 aacgagtgtg gccagcattc ctctgcacc tgcccggagc ctccaggccc agccgtccat 2340
 gttcccagaa gtccagaagt ggctttgctg ctctggact ctactggcc ccccatcgac 2400
 ccttggacca ataactgcca tcaaaataat cctgattatg cacctatcaa gtccctggcc 2460
 ctgggctaaa gtcttcacag gggtcattc atttcattc cagccccaaa aggccaggtct 2520
 ccccccaaaa tacatatgga caaaaagagg ctctgccagg tgtgatggcg ggccgctgta 2580
 gtccagcta ctccgggaggt tgaggcatgg ggatcgcttg ggcccaggag gcggagggttc 2640
 cagtgagccg agatggcgcc actgcactcc agtctgcgcg acagagcgag acttcgcacc 2700
 cgccgcccc ccaccaaaaa aaaaaagggc acagtcagag aagagcagag cccggcttgg 2760
 tttgggtcca gccctgcctg cctctgatgt gctgtgtgac ataggcctgg tgctggccct 2820
 ctctgggtct ccctttcttt ctctctttcc tttcttttct tttcttttct tttcttttct 2880
 tttcttttct tccttcttc ctctcttct tccttcttc ctcttctct tccttcttc 2940
 ctctcttct tctttcttc ttttgacagg atctggctgt catccaggct ggagtgcagt 3000
 ggccgcatct cggctcactg caacctctgc ctctgggct caagtatcc tcctgtctcg 3060
 gcctcccag tagctgggac tacaggcgca caccactacc cccagctaatt tttttgtatt 3120
 ttttgtagag acgggggttc accatgttgg ctaggctggc ctcaaactcc tgagctcgtg 3180
 atctcccg ctcagcctcc caaagtgtg ggattatagg tgtgagccac cgcaccacgc 3240
 ctggttctc cctttcttc tctggataag gaaggctgga ctgcacctc tctacaggct 3300
 gagttggaca ttcgcagatc taccctcca acctgcattc tgcctcaagc agcaacgccc 3360
 accccaggct caggccacat ggagaagcca cccctagtcc cagtgggtgga tgtggcacct 3420
 cggcctggcc aatcagagct ccctgtctc aggttcctag tgattggttc gagatggaca 3480
 cgtgacccaa tgagcggcct ttcctgggag ttctaccagg agcatcagga aggttgagct 3540
 ggggtgtatgg gaaccaggcc ggggcgaggg gttccagggg ggacctgaga acattgcgtg 3600
 gagccctgga tccaactgta cctgacacta gccaatctca tttcttcagt ttcattggacc 3660
 cctaaattat gatttttgcc aaaatg 3686

<211> 3940

<212> DNA

<213> Homo sapiens

<400> 1522

tgttgcagac gtgcaggcca gtggtgttac attcatgctg ttgcaggcgt gcaggtcggt 60
ggtgttacat tcacgctggg gcaggcatgc aggtcgggtg gtgtacacac aacgctgttg 120
caggcgtgca ggtcagtggg acacacattc acgtatttgc aggcgtgcag gccgggtggg 180
ttacattcac gctgttgcag gcgtgcaggg ttggtgttaca cacattcaca cttgcaggcg 240
tgccgggtcgg ttggtgttaca cacattcatg ctgttgcagg cgtgcaggtc ggtgttacac 300
acattcacac ttgcaggcgt gcaggtcggt ggtgttacac acattcacac tgttgcaggc 360
gtgcagggtc gtggtgttac acacatgctg ttgcaggcgt gcaggtcggt ggtgttacat 420
tcacactgtt gcagggtgtc aggttgggtg tacacacatt cacactgttg caggcttgca 480
ggtcgggtgg gtgtacacaca ttacacttg caggcgtgca ggtcagtggg gtgtacacaca 540
ttcatgctgt tgcaggcatg caggtcggta gtgttacaca ttcatgctgt tgcaggcgtg 600
caggtcgggt gtgttgcaca ttcatgctgt tgcaggcatg caggtcgggt gtgttacatt 660
cacgctgttg caggagtaca ggtcagtggg gtgtacacaca ttcatgctgt tgtgcagcta 720
tcaattccat ctccagagcc cttttcatct taaaactgaa gctctcccat cacacagtga 780
cccttcatgt cctccccag tccctgaaaa aactgttca ggtttttctt cctggacctc 840
attgtgtgga gttcctcgtg tgagtgcagt cacacacgat ttgtcctttt tttgttttcg 900
tttgttgaga cagagtctca ttctgtcact caggctggag tgcagtggcg tgatctcagc 960
tcaactgcaac ctccactccc agattccttt ttccaggctga atatctgctg cgtggctagg 1020
ccactttttg tttaatcctc tctcctctgg tggacaccag gactgtgctg ttttggttgc 1080
tgtaagcgcg ggtgcacacg cctgcctgag gctgtgtttt ggccgttgtg agtgtgggtg 1140
cacacacctg cctgaggctc tgctttgttg tgagtgcggg tgcacacacc tgcctgaggc 1200
tgtgttttgg gtgttgtgag tgtgggtgca cacacctgcc tgaggctgtg ttttggtgtg 1260
tgtgagtgtg ggtgcacaca cctgcctgag gctgtggcgc gatctcggct cactgcaacc 1320
tccacctccc gggttcaagc gattctcctg cctcagcctc ccgagtagct gggaccacac 1380
ccaccaccac accccgttat tttttgtat ttttagtaga gatgggggtt tgccatgttg 1440

gccaggatgg tctggaactg acctcaggtg atccacccac tggcctccca aagtgtctggg 1500
attacaggtg tgagccactg tgcccggcct ctttttactt tgtaaatggt gtattttgat 1560
agataacaga ttgtcatttt catgaagcac agctggtcag tttattgttg ctcattgtatt 1620
tggcctcatg ttcgagtccc tgtttttaat catgagctgg acacagccct ctttagagca 1680
actgtgacca cttgtggtga gaagtgcagc ccacaccatc cacgtgaggc tcccacacgc 1740
catccacgtg aggtcctcat gcagacattt agaaggcgtt ttcactgcag ctcaaaaaat 1800
ggccccaggc ccccatgggc acccccatgt caccagggcc tctggttgct gccggtacac 1860
agggataggc agccaggcct cgaagggtgt gggcatgggt ttgggtgtct gcgttgggta 1920
gagaccgga gcgcccttgc tgggcgtgcc ctaacatccc ggtaccctgt gccctctgt 1980
gggccaggac gcctggtgt ggcagctggg cgtaagccct gaggggctga ggggtggctgt 2040
gactcggagg atgagtagga gctcaccagg agggcgtgga gccgaggcgt ttaatatcat 2100
caggagcaac actgggctca gaaggcaggc acacttgccg tccctccaga gccatggctg 2160
acggccaggc ctggtgggct ctctgtagga cagtgcctgt ggttgtcaga tgctgtccct 2220
tcgagtaagg gatgagagcc atcctgaaga tgggtcagct ctgtggtgac caccgttgg 2280
gagcagtac attcaggtgc gttgcactgg tggctgtgtg gctgtgtggt acggccacca 2340
ggagccatgt gggcaaggac agctgtgggc tgggcacaga gctctctctg ctgggagtca 2400
gtcgggtgtg gggcgagggg aggcagagct cacagagccc ctctacagct caccctgcag 2460
ctcggccctg gccagtaaac ccaccatccc ctttctgcc gcaggaggca gtggagaagg 2520
tgacacagca catccacggc ctgtctggga agaaggatgg gctggtgccc atgttcatca 2580
ataccacag tggcctcttc acccacctgg gcgtattcac gctgggcgcc agggccgaca 2640
gtactatga gtacctgtg aagcagtgga tccagggcgg gaagcaggag acacagctgc 2700
tggaagacta cgtggaagcc atcaggggtg tcagaacgca cctgctgcgg cactccgagc 2760
ccagtaagct cacctttgtg ggggagcttg cccacggccg cttcagtgcc aagatggacc 2820
acctggtgtg cttcctgcca gggacgtgg ctctgggcgt ctaccacggc ctgcccacca 2880
gccacatgga gctggcccag gagctcatgg agacttgta ccagatgaac cggcagatgg 2940
agacggggct gactcccgag atcgtgcact tcaaccttta ccccgagccg ggccgtcggg 3000
acgtggaggt caagccagca gacaggcaca acctgctgcg gccagagacc gtggagagcc 3060
tgttctacct gtaccgcgtc acaggggacc gcaaatacca ggactggggc tgggagattc 3120
tgcagagctt cagccgattc acacgggtcc cctcgggtgg ctattcttcc atcaacaatg 3180

tccaggatcc tcagaagccc gagcctaggg acaagatgga gagcttcttc ctgggggaga 3240
 cgctcaagta tctgttcttg ctcttctccg atgacccaaa cctgctcagc ctggatgcct 3300
 acgtgttcaa caccgaagcc caccctctgc ctatctggac ccctgcctag ggtggatggc 3360
 tgctggtgtg gggacttcgg gtgggcagag gcaccttgct gggctctgtg cattttccaa 3420
 gggcccacgt agcaccggca accgccaagt ggcccaggct ctgaactggc tctgggctcc 3480
 tcctcgtctc tgctttaatc aggacaccgt gaggacaagt gaggccgtca gtcttggtgt 3540
 gatgcgggggt gggctggggc gctggagcct ccgcctgctt cctccagaag acacgaatca 3600
 tgactcacga ttgctgaagc ctgagcaggt ctctgtgggc tgaccagagg ggggcttcga 3660
 ggtggtccct ggtactgggg tgaccgagtg gacagcccag ggtgcagctc tgcccgggct 3720
 cgtgaagcct cagatgtccc caatccaagg gtctggaggg gctgccgtga ctccagaggc 3780
 ctgaggctcc agggctggct ctggtgttta caagctggac tcagggatcc tcctggccgc 3840
 cccgcagggg gcttgagggg ctggacggca agtccgtcta gctcacgggc ccctccagtg 3900
 gaatgggtct tttcggtgga gataaaagtt gatttgctct 3940

<210> 1523

<211> 3685

<212> DNA

<213> Homo sapiens

<400> 1523

tttgcagagt gcccagtccc agatccataa cacatgctgg gccatgatgg ggctgatggc 60
 cgttcggtgg ggacgacggg accgtccctg agccttgggt ttgggtagag gagggacact 120
 cagctgtgag ccggtggcct gggctgagtg aatgtagaga ggaggggagg cctgtgggcc 180
 aggtcagctg ccactctggg aacagacacc tacaagagcc acatgcctgg ttcttggggc 240
 aagaacgtgg gctgctctga ccaagtgggg ccctgcagag aggctcgcct cttagaagtg 300
 aaccacccac cattagccat gtcagtggaa gagcaagcac atcagggacc catggaaaca 360
 gcgaggtggg ctgcgatgag gatgctgctt cctgggtgtg tagtgatgac ggtcacagca 420
 gctgctctct gtggccctac tgtgttcaca gctgggtgctg agccacatat gtgccaggtg 480

cacacacacg cagacgcatg caggcaggca tcagtgtaca cactgatgtg cacacacaga 540
tgtacatgga gacagatgca cacacaggcc tatgcacaca cgtacgcatg cccacacagg 600
cacctgtgtc cacacacata cagatgcacc cacagcatcc catctgtgcc acacactgac 660
ataggtacat ggagacagat gcacacacag gtctgtgcac acacgtatgc atgcacaggc 720
acctgtgtac acacacgtac agatgcaccc acaggatccc atctgtgcca cacacagacg 780
taggtacatg gagacagatg cacacacagg tctgtgcaca cacatacata cgcatgcaca 840
ggcacctgtg tacacacatg cagatacacc cacagcatcc catctgtgcc acacacagac 900
ataggtacat ggagacagat gcacacacag gtctatgcac acacatacgc atgcacaggc 960
acctgtgtac acacacgtac agatgcaccc acaggatccc atctgtgcca cacacagacg 1020
taggtacatg gagacagatg cacacacagg tctgtgcaca cacatacata cgcatgcaca 1080
ggcacctgtg tacacacacg cagatacacc cacagcatac catctgtgct acacacagac 1140
gtaggtacat ggagacagat gcacacacag gtctgtgcac acacatacat acgcatgcac 1200
aggcacctgt gtacacacat gcagatacac ccacagcatc ccatctgtgc cacacacaga 1260
cgtaggtaca tggagacaga tgcacacaca ggtctgtgca cacacatacg catgcacagg 1320
cacctatgta cacacatgca gatacaccca cagcatccca tctgcgccac acacagacat 1380
aggtacatga agacagatgc acacacaggc ctatgcacac acgtatgcat gcacaggcac 1440
ctgtgtacac acatgcagat gcacccacag tatcccatct gtgccacaca cagacatacg 1500
tacatggaga cagaagcaca tacaggctcta tgcacacatg tacacatgca caggcacctg 1560
tgtacacaca tgcagatgca cccgcagtat cccatctgtg ccatacacag acatacgtac 1620
atggagacag atgcacatac aggtctatgc acacatgtac acatgcacag gcacctgtgc 1680
acacatatgc agatgcaccc gcagtatccc atctgtgcca cacacagaca tacgtacatg 1740
gagacagatg tacacacagg tctatgcaca catgtacaca tgcacaggca cctgtgtaca 1800
cacatgcaga tgcacccgca gtatcccatc tgtgccacac acagacatac gtacatggag 1860
acagatgcac acacaggctc atgcacacat gtacacatgc acaggcacct gtgcacacat 1920
atgcagatgc acccgcagta tcgcatctgt gccacacaga catacgtaca tggagacaga 1980
tgtacataca ggtctatgca cacatgtaca catgcacagg cacctgtgca caccctatac 2040
ctccttatct gctcttcccc tccttccgc cttctgggca ggtagcagtc cctggcctct 2100
ccccctggct gatcactctc cctcaggcag tggagatctg cgtctggaca ccctcagatc 2160
ctgtcattgc ctgcccagag tccttcaggg gcacccctct gccttggtgt gcagtccagg 2220

gctctcaccc aggtgccgca ccctctgggg tcttctgtcc agctcccttg ccccatgtgc 2280
 tgtcacggcc tcaaggtagt gaggctagga ggttttttct gaccaatagc tgagttcttg 2340
 ggagaggagc agctgtgcct gtgtgattcc ttagtgtcga gtgggctctg ggctggggtc 2400
 ggccctgggc aggtttctcc tgcacctttt gtctgtctggg ctgagggaca cgagggaac 2460
 cctgtgacaa tggcaggtag tgtgcatccg tgaatagccc agtgcggggg ttgctcatgg 2520
 agcatcctga ggccgtgcag caggagagccc catgcccctg ggtcgtgagc ttgcctgcgt 2580
 atgggggtgt gtcgtggagc ctcattgcccc tgggtcgtga gctcgcctga gtatgggggtg 2640
 gtgtcatgga gccgcatacc cctgggttgt gagctgcct gcatatgcag ggtctgtcat 2700
 ggaacatccc aagtctgtgc agcaggagc cccatgcccc tgggacatga acccacctgc 2760
 gtggaatgct gtttgtgagg tgtctacagg gtttatagta gtcttgtgga cacagaaatg 2820
 cacaggggac acttacggac acagaaatgc acaggggagg ccgagcataa ccaggggtga 2880
 ggggcaggca gcagttgtag ttactgccgc ggggcactgc tatgtgcagg gacagccagc 2940
 acccagccca tcaccactcc ctgggctggc tggcaggtat ggcaccctgg gagcccggca 3000
 tatacccagg gcaccctac ggctgccgcc agtctcatgc ccagggtgggt gctctgggct 3060
 ggagcgaggg ccaggttttg ggccgaggct tccccaggca atcctgtgag ctcccttcta 3120
 gcctctgacc cagtctggtc tggcttgcatt ggatgtaggg cttgggggtgg gaagttcagg 3180
 tcctggcttt gcctttgcct gatgtggatg agcagctcac atgctcaggg ccacctgaga 3240
 ctgtcactgc tctcccctgg ctactgggag gagtcaactga gagcttcgtt acccctgctg 3300
 ccttgcccag ggcacaccct atacctcctt atctgtctct cccctccctg cctgttcagt 3360
 gtcaacactt ccctgcacat cttaaaactg ggctttatct tcgctgaagg aactgtgttg 3420
 ggacccttga catctgtcag gtttgcacat gctgtttttt tttctcagcc cacgtgttct 3480
 ccccccagtg gggtagcagc aggacagaca gtgaatcaca gagtctgccc tgagcagagg 3540
 ctgctgtccc tgggactcct agccatggtc agactgtaca aaacggtttt ccagaaatga 3600
 aatgtaaatc catttttata ctgaaaatgt tactgaaagt cacttttatg agcatctgcc 3660
 ttaataaaca gacattgatt ccctt 3685

<210> 1524

<211> 3798

<212> DNA

<213> Homo sapiens

<400> 1524

ctttcactca	ctggttgttt	aggagtgtgt	catttccaca	tatttttgac	tttcccaa	60
ttccttcact	gttgatgtcc	agtttcacgc	cagtacaact	gaagaacact	cctgctttgg	120
tctcagtcct	tttccattca	ctgaggctca	ttgtggggcc	tggcacgtgg	cctgtcttgg	180
ggaatgtccc	atgggcgcct	gagaggactg	tgtattctgc	cgttggttggg	tggcgtgtgt	240
gatagatgtc	cactcggcgt	acctggtttc	tgggtgttcat	ctccggaatg	ttgctgacac	300
tagaaaatca	gcagctttcc	accgtttcca	gcgccttggc	tttgggagag	gcccgtgagc	360
ctgtggggtt	ggagcctggc	tgcacgggag	gagcacgtgt	gggaacgcca	ggggccggct	420
ttgagcccca	ttcccccaac	atgatgccgt	gtgtggcaga	cgtgacattt	ggttttgctc	480
ccccagggtt	ccatctgcga	caggggctac	ttgtgtccct	ggcctcgtca	gctcgggctg	540
aaggcggccc	tggtcctggc	cagaggggct	ttgtgaagca	gaaatagatg	gcctggtgca	600
ggggccaagc	tcggctaggg	cctcagccct	gggagttgta	aagaaggccg	gcctctacca	660
tgggcatctg	caccaagctg	tgcccatgtc	acggtgtgct	cagcggttcc	ccgcctgtgg	720
ggcccaggct	cacagaggtg	tgaaagaggc	aagcacaccg	caggggcctc	tgagcccagc	780
cagcctcgtc	tcaatgctgg	gaggctgacg	tcttcctttt	tgtcttctgc	ccaggccagc	840
tgcgggcccgt	ccagcggctg	tgccatttct	acagcgccgt	catgcccagc	gaggcccagt	900
gtgtcatcta	ccatgagctc	cagctctccc	tggcctgcaa	ggtggccgac	aaggtgctgg	960
aggggcagct	cctggagacc	atcagccagc	tctacctgtc	cctgggcacc	gagcgggcct	1020
acaaatccgc	actggactac	accaaacgaa	gtctggggat	tttcattgac	ctccagaaga	1080
aagagaagga	ggcgcatgcc	tggctgcaag	cagggaagat	ctattacatc	ttgcggcaga	1140
gcgagctggt	ggacctctac	atccagggtg	cacagaacgt	ggccctgtac	acaggcgacc	1200
ccaacctggg	gctggagctg	tttgaggcgg	ctggagacat	cttcttcgac	ggggcctggg	1260
agcgggagaa	agctgtgtcc	ttctaccggg	tgagctggcc	tgtgggctga	tgtgggtggg	1320
tcccaggggg	ggcaccttga	gggctgaggc	acaggtgtgg	cagggcagag	ccctcgcacc	1380
tggaggcagg	gccgcccattg	cacatgctta	gtttcctagt	ggtttcaccg	ggaatgatat	1440
tgactgtgcc	ccccgcccgg	gacaaacact	tggggcctgg	acacagcaat	ggccttacct	1500

ttgcacccga tgatctcaag caaccttgag tgggaagtcc tgtcccatc ttacagatga 1560
ggaaactgag gctcagagag gcacagggac acgtcaaagg acacacggca tgccagtggg 1620
aggcccaggg ccagggccca ggtctgcatg caccgccgaag cggggacggc ttcccccttc 1680
ctctgagctc atggtgtggc tcagccctgg gcacagataa atgtcgtgtt tttagagcag 1740
agaggagtgc aggctcccc cagtcagacc cctggtgccc aggcgaggagg ggctggtttg 1800
aggctgccgg gtgtagctgg atgggcctca ggtgactctt cagcccctag cttgggtgtc 1860
tgaaccgccc tttatctcag agcacacagc tgtgtcgagg cccaggggta gctggggcgt 1920
gggaagctcc gagcacatgt ttgagctctg aggagggcgc tgggcaagggt ggggtgctgcg 1980
ggaagcctga cccacactgc ctgtgtggca ggaccgggcc ctgcccctgg cagtgactac 2040
gggcaaccgc aaggcggagc tgcggctgtg caacaagctg gtggcactgc tggccacgct 2100
ggaggagccc caggagggtt tggagtttgc ccacatggcc ctagcactca gcatcacctt 2160
gggtaagccc cctgagcccc tgccctgccca ggaccacac tttgccagag ctcagcctcc 2220
aggtctgcag ggcaggagcc gaaacagctg ccgattttc ctggtctcct gtccaggcag 2280
gcacatctgc ccagctggct ccccgctccg gccgtggggc acagcccagag gtccttact 2340
cagtgcagag ctccctgcct ggctgagctc tgcttctgt gcctcttccc cctgctgacc 2400
acgagggtg cccagtgtgc cctctgcctt ccagacatgc cagacatctc gttggtccct 2460
gcatgtgccca ggctgagtgg cacattccct ttctcttggt cccttcccac cctcatcaac 2520
cacacggctc tgtggctgat gaagtcccag ttccccctcc agcagcctgc cccttaatgc 2580
cgggcatccc ccggtgctgt gccagggtcg tctgtcctct agagagaggg agccccagac 2640
aggccacatg cccaacgcc ttgtggccca ggggctggta cacaggtgtg cagccgcgtg 2700
ggaatgcatt gaatgcaggc tccacagcac tcacctgaa aaggggagga caccggagac 2760
agcctgggtg ggctcgcgca tctgtggggg gacctggagc tcaggcacgc agtgactccc 2820
caaggtaggg gactctgatg atgacacacc caggaagagt tggatgtcat gtctgtgggt 2880
tgccctggagc cctggtgccc aggagcgcgt gggctgcatg ccttttgggc tctcctgggt 2940
aaaaacagtg agcaaaggca ggtggctata tgtaggcaca gagctgggcc atccaagtcc 3000
gactttgccca aagcctcacg gtagatgggg gcaggcctta ttagttctgc tttgtagatg 3060
ggaaagtgag tctgggagct gggaaggac tggccagaac tgcccaggtg accgcagtgc 3120
ctggaggcga gccaggtgct gccggggtct gcatgcctgc cccggggagc cacgtcctca 3180
cacctgcccc cttggcctgc accccagggg accggctgaa cgagcgcgtg gcctaccacc 3240

ggctggccgc cctgcaacac cgactgggcc atggcgagct ggcagagcac ttctacctca 3300
 aggccctgtc gctctgcaac tcgccgtgg agtttgacga ggagaccctc tactacgtga 3360
 aggtgtacct ggtgctcggg gacatcatct tctacgacct gaaggacccg tttgatgcag 3420
 ccgggtacta ccagctggcg ctggcggccg ccgtggacct gggcaacaag aaggcacaac 3480
 tgaagatcta cacgcggctg gccaccatct accacaactt cctcctggac cgtgagaagt 3540
 cgctcttctt ctaccagaag gccaggacct tcgccacaga gctcaacgtc cgcagggtca 3600
 acctgcctcc tctgccactc tgcgggtggg ccccttggtt ggccccccagc caccctcgct 3660
 gaggacagca tccaagggag tgggttttgt gcaagggtg ggggtctcct gcctttcctg 3720
 gtgtcgccgg tggtcattt tctggcaaat ggaggcacga acgcaggggc caaatagcaa 3780
 taaatgggtt ttgttttt 3798

<210> 1525

<211> 3423

<212> DNA

<213> Homo sapiens

<400> 1525

cttattattg caattgaagt ctaatgcatg ttcactttta aaaagtttag aaagttaag 60
 acgtttatac aagaaaaagc acatattcct tcctcacaga caccacagct cctgccaccc 120
 atctgcctgc cattttcaca ctgccatggg ttaactcggt ccctgtggcc atgtagaatg 180
 atatgctgcc accaggtggc agcaccaggc cacagactcc aggtcctgga ggtcaaggcc 240
 cagtggcctg tccactgacc ttgagaacca cacatttctc tgtcatacac atcaaaagag 300
 ccaatacttt tgtttttttt ttttttttct ttgagatgga gtctctgtcg cccaggctgg 360
 agtgcagtgg catgatctcg gctcagtga acctctgcct cccagtttca agcaatcctc 420
 tggcctcagc ctcccaagaa gctgggatta aacatgcacc atcatgcca gtcaattttt 480
 tgtactttta gtagagatgg gggtttaccg tgttggccag gctggtgtca aactcctgac 540
 ctggaactcc tgatccgcct gcctcagcct cccaaagtgc tgggattata ggcagtagcc 600
 attgtgcctg gtttcaactt acttttttaa aacttgaatc acattctgta gactgaaaaa 660

taacagaagt tagcacttat accatcactt cattaattcc ctgtcacagc ctacatgag 720
ggttcattat ccccttttta caaatgaaga aaccaagtct ctgaggggtg gagtagcggg 780
ctaaggtcac acaggaagcc aactatgtc ccaacacttg gaatgatgtc accagccctg 840
tgctttcttt ttttcgagat ggagtcttgc tctgtcgccc aggctggagt gcagtggcac 900
gatcttagct cactgcaagc tccgcctccc ggggttcacac cattctcctg cctcagcctc 960
ccgagtagct gggactacag ttgcccacca ccacaccgg ctaagttttt tgtattttta 1020
atagagtcgg gggtttcacc gtattagcca ggatggtctc gatctcctga cctcgtgac 1080
tgctgcctc agcctcccaa agtgctggga ttacaggcat tagccaccgc accttgccag 1140
ccccatgctt tctttgtgac cactcccagc ctgtttccca acctcccacc ccacagggag 1200
tatgaggagt agcagtgatg cctgtgacag aggcaatgcc aggcaactat tggtgtgggt 1260
aaggggcagg ttgtcacagg agctgccatc cagcagggtg cctgataccc aacagggaag 1320
ctgaggctgg gggcctgacc ttggtgccct gccctgacct acagccagcc cccctggcct 1380
gatcttcctt ggcacccctt tgtacctca gttccggaac cccaaggcat ccttgcgtgt 1440
gcggtctgt gacctctga gccacctgca gcggagcggg gagcgggact gccaggagtt 1500
ctaccgagcc ctgtatatcc atgcccagcc cctgcacagc cgctgcccga gccgccacgc 1560
tctgcgtaag ttccacatca ccaaccatgc atgcttggtg ctggcccggg gagggcaccc 1620
cagcctgccg ttgatggcat ggatgtctc catgaccacc caagtctgt gcagcccagg 1680
cctggcatcc cctctgcct cagccctcc ccagaggcca cctctggcc ccgaggggag 1740
agtgtggcag gcacaggcag tgcagatgtt ggtctctgtc tcccactttc tcccccttc 1800
tccgtctctc tctcatggca gttttcacac agcatggggc atcttatacg tccactcttg 1860
cccttccttt tctaacctca ttccacgggg atcccttcat gtctgtgtgg acagcaacct 1920
tgttcccaca gctgcatggc gctcctaggc ggtcccagct ggaattacc aacccatga 1980
cggacccttt cattgcagcg atctgcacac gtgtgggtgt ttccatagga cattgtcagg 2040
cacggatggc tgggccgaag cacgtgcatt tcagttttga ggctcctgtc ctcaggcagt 2100
gtggactcag gccctgggag tcatgtggat gccagtagcc tgggcccaca gagctgtgtg 2160
gatgtggggg gcatatcaag ttgaagatgg caactctgat ctgacgcctc tgtgtcagg 2220
gcccctggag gaggggctac tgccccttgg cccttagaca acaggacaga gaccagaggg 2280
actgggcggc ttgtcccagg ctactgggct gtggtctctg accccctgga ggcctcccca 2340
cgctcacag aacacagtgc agacgggtggg cggggagagc tcgaggggag gccagccct 2400

gcagggtggga ctggctctcc ctccccagcc acgagtatgc cacagggggc tttcaaaacc 2460
 aggcagggcc aagccttggc cccactggag gtagagcacc ttctgtggct cccgggtgcc 2520
 tttaggcccg tccaggagtt ggagcagagg agaagacca gactgtgcat agttccctga 2580
 ggagggctag cctcaggtgc cacagcctgg ttcggcctgg cggccccagg acgcagcagc 2640
 aaccttgggc ttcttgcggg gtgactacct tgccctccgg ccctgcccgt tgactaacta 2700
 tgctctgtgg ttttgtttcc agagaactca gattgcacag agctagactc gggcagccag 2760
 agcggcgagc tgagtaacag gggtaacacc tccctgtgc ccctccctct ctctccctct 2820
 ctctccctct ctctttacc tccccagggc tccatctccg cctcaggggc ttctccacc 2880
 caagtctggc tccattcctg gccttctgtt ggtgacagac cccccctaa ggtgctcgtt 2940
 tgggggctct tcaggcagca cctcagcctg gcacccccac tcccctgcac agcccccagg 3000
 cctcaggacc ccacccctct gaggcccagg ggagccctgt tcacgctggt ttctccccag 3060
 gacccatgag cttcttggct ggcctgggccc ttgtgtgtgg actggccctg ctctgtact 3120
 gctatccgcc agacccaag ggcctgccag ggacccggcg cgtcctcggg ttctgcctg 3180
 tcatcatcga cagacatgtc agccgctacc tgctggcctt cctggcagat gacctagggg 3240
 ggctctgaca gaccctggac ccagggcctc acctgccact caaccaaaga gtcctcgagc 3300
 cggcccccca aggggactgc tgcttctttt tctaaatgca tatttttcat tatttataat 3360
 ttgtgtaaaa aacacacctt caccttaciaa ggtgctgacc atattaaatg ttcaagttct 3420
 ctc 3423

<210> 1526

<211> 2931

<212> DNA

<213> Homo sapiens

<400> 1526

agccatgggt tcgcttccat agtcactaat taaagtgaat cataattatt tctgctaatt 60
 tggattcgat tggaggagtt tttaggctgt ggtaatttgg tcattacaca ttatcttcta 120
 ctgcgcctga gatgctcaga gtgtcgactt ttgttctcta tccaaaagcc gctcatgggtg 180

cttccacggt tttctgaagc gtcatttggc cagtggatgc ggcacagggc tttctgccct 240
gagaggcagc agctgtttca gatgtgggtt ctgtcccttt aggggtgagac atgaaaaagt 300
ggtggctttg cagggagggc tgcggttcag aggcctgcct agggcaggtt tcctcacttc 360
ccagttcgcc ttcagaagca accacactcc gcctgcccag ggaaacactg gtgcgcaacc 420
tggcgcctgc catgagtggc agagcttgct ttcaagccct atgggagcca gggcaggcag 480
caagggccct ggccccact tctggttcgt cgatggctct tgtgtggctc taccaggccc 540
agagtttggg tcctctgctc ttcattcaca gcaagggatg ctgaaattga agcaactcct 600
gacagataga tccaaccttc ccattttggc atatggtccg ttggtgttct gttccctgga 660
tatatTTTTg tctcgacagc tagagtgact ttctggggag gaaggggatg tgttgccagg 720
tccaggggtgg gaggatgtgc cccttactcc caccctcac tcccacccta ctacagggtg 780
ctcagaggcc gggccctccc ccgcccccta cccagccca cttctgcaca gatcaatcca 840
cacatcctgt cccacctcc ctctctgtg gggcacctc actgttcca ctgagctcaa 900
cagtgtctgc ctgggacagc cctcctccc aggttctgtc ctgaaagttc tttcatctt 960
cctctacctc ctgggtctca aactgtaacc tgatctatga cattcaaaaa tttttgtat 1020
tgaccaattt ttttttttt ttttttttga gacggagttt cactcttggt gtccaggctg 1080
gagtgcattg gcacgatctc ggctcaccac aacctccgcc tcccgggttc aagcaattct 1140
cctgccatgg cctcccaagt agctgggatt acagacatgc accaccacgc ctggctaatt 1200
ttttatTTTT agtagagacg gagtttcacc gtgttggtca gggatgatct aaactccga 1260
cctcaggtga tctgcccacc tcggcctccc aaagtgtgg aattacaggc gtgagccacc 1320
ataccagcc ttgaccaata tgttaaaatc aagatatctc acagaaaacc cggtttgcag 1380
gttctctcag cagccccagg cctgccacat tccgtacccc acgcggctgc agtgagctgg 1440
agccgtgggt ggctgccccg cagtgggggt tcccagcaac caccatgaca cctgcctggg 1500
agtgagactc tgcagcttcc atttctgccc tttctgaggc ccctctgctt tgtcctggcc 1560
cagacctctc cccccagccc tacatctggc tgccctcagg acacatcccc attcactcgc 1620
aaaccagact cagcctctgc cccgggctgc tcctcttctg tgttctgcca tcctgaagcc 1680
agaaggacca ccttggtctg tctgtcctgt gcccagacca tccattccag gccctagct 1740
cactttccag atggccctgg gtgcacccca catctccagc tcccttggcc caggccccct 1800
cctctgcata agccctgctg tggtttcagc caccctctc gtctgaggcc aggtgtgact 1860
cctcttatgc cctccactgc ctcaggaagt ctgaacgtca ccttgtacca cctcccgccc 1920

ccctgcccc gccaccetta gctccagctc tgccccagcc acaaccccga tgaggggctc 1980
 ctgtaccctt ggcccttgct tgtcttggtc ccacactggg tgtggccaca ccacctcatg 2040
 gagtccctc agcggccagc cacacaatcc tctcttcctt tcatgggctc ctctgccctc 2100
 gtgcccaggg tcttgtctgt ccatcagaca gagcaccagg acagcagagc tgtggtgtgc 2160
 ccagcacacg cggatcccag cgcggagaag tgaagtacgt ggggctgcct tggggacagg 2220
 cccagccgga gaggggcccgg gacgctggag ggactcgtcg cagaaatcag cggctccctc 2280
 cttcccggaa ggccctcatg gtttcccgta tgggacttca gagccttcag ggaaatgtgg 2340
 ctctgtgaag gaagggactg gaatcccttt ttcctcacct acaatagagc cttattctgg 2400
 acacctcttc cgttgacagt ctttgccac caggactcaa aggcacagcc tttcgtgtga 2460
 ttgcttgttt ttgcaagaga aacacaaggc tctgcggctc ccaaggccac gagccaggaa 2520
 tcaatgaggc ccagcaaata atcaagtga tcttggtgag atcacacggc agatgaggag 2580
 ggagaagcgg ggcgggaggg agcaggacct cgtcactcct ccggccagtg ggttcttgtc 2640
 gtgcagggcc cagtctgagg cctccctgcg agtgtccaac cctgtccggg acacagcgcg 2700
 gggcaggtga caccaagtgt tggatgagtg agaggctgac gccttaagac caacaaacag 2760
 gcggccgggg agaaaccgca aagacacccg ctcctcagaa agcagcgag agcagcgac 2820
 gacaaacaga tccgactgga agctgcctct tagaccatgt gagcctgtga ccccgccca 2880
 caactcaact tctggcctca gtgtgttcaa cggtaaaagc agcatcactt t 2931

<210> 1527

<211> 3117

<212> DNA

<213> Homo sapiens

<400> 1527

ctgatcatct ttccaggtaa tacaagagtg ttctgcaaa gtgagcctct gaagctttgg 60
 aggggaagtg tattagtctg ttttgcgttg ctacaaagga atacctgaga ctgggtgatt 120
 tataaagaga agaggtttat ttgacctatg gttctgcaag ctgtacaaga agcatggtgc 180
 caacatctgc ttctggtgag gactcaggaa gcttcactc atggctgaag gcaaagggga 240

agccggcatc acatggcaag agagggagca agacagagga gggggtgctt caggctcctc 300
taaacaacca gatctcgtat ggactcacag agtgagaact cactcattac ttcaaggaca 360
gcaccatgac attcatgagg ggtgcgcccc catgacccaa acacctccca ctaggccccca 420
cctccaacat tggagggtcac atttcaacat gagatttggg ggtggcaaaa catgcaaacc 480
atacaggag ggaggagcag ggtggtggat acagctgcac agactgggaa atgggcccaga 540
agcagctttc cggcttgtgt aggtgctagg aaagacaggc tggtaagaca cagaatgcct 600
ttcgggtctcc aggcgtccag catggtctag atcagatctg catataaggt catcttatca 660
gaagggttct ttgagttctg gaaaccacac tctgcccc cactttcaca tctggaatat 720
caggacaata tttgacatgt agcatacatc ggttttggag cctaggaaat tcccacctac 780
cttcttccac ccactacact cttttctgtt cctcctgatg ctaggcttgt tcccgcctcc 840
gagccttcac actgctagcc gttacctatg cctggaatgc tctcccctgg tgtctaattct 900
gcctgatgct tctcctcct tcaggactga gttaaattgc cccacctcag agaagccttc 960
gctgactgcc tttgctctc ctgggcctgg ttgccctag acccactctc tgccccccaa 1020
cacttagttc tctcctgcag gagcactggc ttccagcaga gagcagctgc tggggaccac 1080
tgacaggaga ctgggaagac aaggaaaaag ccctctctc tctgtcccag gtggcttctt 1140
aggtagtggc catgtcttca tggttccagc ttctgcagag tggcgtccga acctggcttg 1200
gaaaataaccg cttttcctt tgcccctccg gtccaggcat gattgcagca attcagtcac 1260
ttgtccgggt tccactccta attctagttc ttttgcattt ttcaccacat ctgcagtgc 1320
ttctcccact gaagtcttta acattcaaa ggcatccttg agggttaaag tcaacttctt 1380
tcaaactcct gttaatcttg atattttgac ctcttccctg gaatcacaaa tgtccttaac 1440
ggcacaagaa tggtgactcc tttctagaat gtttccaatt tgctttgcc agatccatca 1500
gaggatctct ctgtagcagc tatagcctta caaattgtat ttcttaaata ataagacttg 1560
aaagttgaaa tgactcctta atctatgggc tgcagaatgg atgctgtgtt agcaggcatg 1620
aaaacaactt aatctctttg tacatctcca tcaggactct tgagtaacca ggtgcattgt 1680
caatgagctg taatattttt aagggaatct tttttttct gagtagtagg tctcaacagt 1740
ggacataaaa tattcagtca accatgctgt aaatagatgt gctgtcatca ggctttgttg 1800
ttgcatttat acagcatagg cagagtagat ttagcataat tcttaagggc ctaggatttt 1860
tggaataata aactagcatt ggcttccact taaagtcacc aactacatta gccctaaca 1920
agagggtcat ttagttattt gaagctttga agccaggcat tgacttctct ctagtgatga 1980

aagttctaga taacatcctg ttccaataga aggctgtttt gcctacactg aaaatctgtt 2040
gttttagtgta gcaaccttca tcaatgatct tagctagatc ttctggatga cgtgctgcaa 2100
cttttatatc agcatttact gcttcacttg cccitttaag ttatgcagat ggtttctttc 2160
attaaacctc atgaaccaac cctgctagc ttccaacttt tcttctgaag cttcctcacc 2220
tctctcagcc ttcatagaat tgacaagagt tagggcgttg ctctggatta agctttggct 2280
caagggaatg ctgtgggttaa ttgaccttc tatccagacc actcaaactt tctccatatc 2340
agcaataagg ctgttttgcc ttcttgccac ttatgtgttc accggagtag cactttcaat 2400
ttccttcaag aacttttcct ttgcattctc aacttggcta actggtgcaa gggacccagc 2460
tttcggtctc tcttggcttt tgataggctt tctcgtctaa gcttaatcaa ttctagcttt 2520
taatttaaaa tgagaggcat gcaattcctc ctttcatttg aacacataga ggccattgta 2580
gggttattaa ttgacctaat ttcaatattg ttgtatcttt gggaacaggg aggccctagg 2640
atgagagtga tgggggaata gctggtcagt ggagcagtca gaacacacac agtatttatt 2700
aagtttgcca tcttgatagg gtgtggttta tggcaccccc aaacttttac aatagtaaca 2760
tccaagatca ctgattatag atcaccaaca ccaacacaga cataataaca atgaaaaaaaa 2820
agggtgtttt ttttctgaa atggattcta gctctctcgc ccaggctgga gtgcagtggg 2880
gtgatctcgg ctgactgcaa cctctgcctc ctgggttcaa gagattcttg tgcctcagcc 2940
tcctgagtag ctgggattac aggcacccac caccacactc ggctaatttt tgtattttta 3000
atagagaaat ggcctcgaac tcctgacctc aagtgatcca cctgcctcgg cctcccaaag 3060
tgttgggaatt acaggcatga gccaccgcgc ctgaccaata ataaaaatgt ttgaagt 3117

<210> 1528

<211> 3230

<212> DNA

<213> Homo sapiens

<400> 1528

ggttggccgc gcatggcggc gcatgcctgt ggtcctagt gctcgggggg ctgaggcagg 60
aggatcactt gaaccaagag ttcaaggctg cagtgggcca tgaccgctcc accatactcc 120

agcctgggct acaaagtgag accctgtgtc taaaagagaa agaaaaataa aaagtgaggc 180
tgggtttttt cactgtaaca catgtaggcc aggcagctac ttagttcttt ctaagaaact 240
ttcagctgta ggagttgaaa ccagagggct gtcctgggtc tctccttgtg gcagagtga 300
ccatgaaagg cccgctgtgc tgtcttgccg tccgagcatg gggatgcaga cgccactctg 360
cagtgtgga ggagccctgc cccgtccagg ttccctcctt gcctcccctt gggagctctg 420
cccgggtggc catccatctt ctgtcccga gcctgagatc tgtgagcctg gtatgtcccg 480
tcagctggaa ctctgtgtgg ctagaggcac acgttcctct tgaactgttt cagccaaggc 540
gggttgagtg gtctcagaga atccagggga gagtccagca gccacattgg gggcgggtggg 600
tctccctggg ccttgggaac gatagcattg gctcactgtc catgtggcca ggtgtgcggt 660
caccacagcc tcctgcagac ttccaccagc cacgtgcctc tggcttcgca gcagaggcca 720
agcaccaaag actgggtgcc tccccacgt gctgggtgtc ctctcttctg cggagttcag 780
gcacctgggc acgggtgagg caggatcgag gaggcaaggc cagagcccgt catatggccg 840
tggggtccct ccgcgcatct ggccaggcca actttcagt tttgatgttt tgtacctgag 900
cagcatctgt atttctgtac gtgaccatt tttatcttgt taaaaaattg acaatggcgt 960
taaagtatt gtgactcaag taggaaagct tacgcaacc ccttcacccc aaggtggacc 1020
tggtgtttc ctccgtcagc gcccggtggt gtcctttcc cggaggtgcg gctgcggcca 1080
tgccacctgc tttcttgtct tcggcccatg tgccgtgagc gtttctccac ggtccctaca 1140
agcctgcagg ggctctgctt cttgtcttct ccacctgttg cgggggcctg ggtgcactgc 1200
tccttcaccc ttgacctctc gtggctaacc atctcacgac agtcttcgtg ctaaagtccc 1260
ctctcccctt ctctgggtct atgtcatagg taaagtctta ggaccgggac tcttgtgtga 1320
tggacctaac cccccacctc catggcctgt atacaaatta ccgccctgag gccgatagga 1380
acttctggct ccgtcttcca cagtccatcc tatgtaaaag tccattctga aaatggcatg 1440
cttcaaaact agttctagaa agttctgcag ttgtttccta gcccaggag agtcatcacg 1500
gccagtccgt cctgtgtgtt aacttatttg gtccttacca cggctggatg aggagatgct 1560
tctgttgaca gatgaggaaa ctgaggcacc gagaagtcac ttgcctaggg acacacaggt 1620
ggggctggtg agtggcagag caaggatttg agccagggtg tctggctcct gtgtcctgta 1680
ctagagacca cagctggggg ccctggggca ggtggcgtct gaggccatcc gtccttggt 1740
ctgccgcctc ctccggaatg aatggccctg gcatcccgt gcagatcagt agagtccctgg 1800
ctgcacactg gggccaaaac aggcacttga aattagggcc tcatcgtgcc cttctctctt 1860

cttcttcctg gactttgaaa ttgctcactg cttgttgac atctgctgga gataacacgg 1920
ccatgtgtgc gtgtgtttgg gggggttctg cctgcaccct gaaacctgtg ggccaggaga 1980
ggcctggggc atttgtcagg agcggcgctg tgcagcctgt gttttgctct ccatacttcc 2040
tggcacttaa aaaactctcg tggatttgc ctaaaagcaa aaaggaaaac ggaaggactc 2100
gatactcaca tttcaaaagg aagttgtaaa atgtacggtc tgtgcctggg gtgagaagcc 2160
ctcgtgcctt cctggcatgc tgcaggttcc cgttcaagtt gtcagccag atctgattgt 2220
gctggtcagg ctcacctgcc aggtgagtgc gcggccggcc tcacgtggag atgtgcctgg 2280
tgtgcctggc agagcccttt caggctttgc tttctaggag agtgggtggag gaaatcagtc 2340
atttcaaaac cttttgtttt tctttgtac agcaaaaaga tggcaccttt gcagcagggg 2400
gctacatgcc ccctctccgg tttaaagcac ttaccctctc tgtggtgttt ggaaccatgg 2460
ttggtggcat ccttatcccc aacggtaagg cgggagggct gccctgttgc cggggagtgg 2520
gacccggggg cttcggcatc aaccaagacc tgcacagtta cgagacctgc acagagacca 2580
tcttctctgg tctcttaaaa aagtctagag actttgtcag ttttctctg gccacagag 2640
aaaggcaggg gataaaatct ggcaacttga gccagggtgcg gtggctcaca cctgtaatcc 2700
cagcactttg ggaggttgag gtgggtggat cacctgaggt tgggagttca agaccagcct 2760
gaccaatgtg gagaaacccc gtctctacta aaaatacaaa attagcaggg cgtcatggtg 2820
catgcctgta atcctagcta cttgggagggc tgaggcaaaa gaatcacttg aaccggggag 2880
gaggagtttg cagttagcca agattgcgcc attgcactcc aggctgggca acaagagaga 2940
aacttcgtct caaaaaaaaa aaaatctggc agcttgctgg gcgcagtggc tcacgcctgt 3000
aatccccgca gtttgggagg ctgaggcggg cggatcacga ggtcaggaga tcgaaaccat 3060
cctggctaac acggtgaaac cccgtctcta ctaaaaatac aaaaaatta gccgggcgtg 3120
gtggcgggtg cctgtagtcc cagctacttg ggaggctgag gcaggagaat ggcgtgaacc 3180
tgggaggcga agcttgcagt gagctgagat cgctccacta cactccagcc 3230

<210> 1529

<211> 3061

<212> DNA

<213> Homo sapiens

<400> 1529

tggttttttc	tttggagatg	gagtctcacc	ctgtctcctc	ccaggttcaa	gtgattgtca	60
tgcctcagcc	tcctgaatag	ctgagattac	aggcacatgc	taccatgccc	agctaatttt	120
tgtagtttta	gtagagacgg	tgatatggtt	tggctgtgtc	cccacccaaa	tctcaacttg	180
aattgtatct	ccaagaattt	ccatgtgttg	tgggagggac	ccaggggagg	caattgaatc	240
atcgggctgg	tcttttctgt	gctattctcg	tgatagttag	taagtctcat	gcatctgat	300
aggtttatta	ggggtttctg	cttttgcttc	ctcctcattt	tttctcttgc	cgctgccatg	360
taaaaagtgc	ctttcaccac	ccgccatgat	tctgaggctt	ccccagccat	gtggaactgt	420
aagtccagtt	aaacctcttt	ttgttcccag	tttcgggtat	atcttcttca	gcagcgtgaa	480
aatggagtgc	acacacacgt	cagcactgtg	ggcgcacaca	cctgcactca	cacattcatc	540
aggacccatg	ggcacacgtg	cacacacacg	tcagtcctgt	gggtgcacac	acctgcactc	600
acacattcat	caggacccat	gggcacacgt	gcacacacgt	cagcaccgtg	agcgcacaca	660
cctgcactca	cgcacacacc	tgcactcacg	cactcaggac	cgacggacat	acgtgcacac	720
acacatcagc	accgtgggcg	cacacacctg	cactcaacgc	actcgtcagg	accacggggc	780
agatgtacac	acatgcacca	gcaccctggg	acacgtgcac	gcacacatca	gcacccatgg	840
gcatacatgg	atgcaçacat	cagtaccatg	ggcacacaca	catgcacca	ctcccgatgg	900
cttcggcttg	ctgggtgcct	gcttcgccct	cgggtgagca	agtctggagg	caggcacttg	960
gggtggggcc	acagtatggg	tcttaggagc	ccagtgtccc	ctggaccac	ttgctcccag	1020
ccttgggtcc	caaagtgtg	ctcccactgg	tctctgtgcc	ccacccatca	tgggcagggc	1080
tgtctgaaca	gggcagagtc	acgagtgatg	caagggtggg	gtgtggaggc	cttgcctaga	1140
ggcagcagcc	agctctggct	tggctggggc	ttaccttcac	tgtcctgctg	tgagacgcag	1200
gagccctggg	ggaggacggc	agtctgtatc	agggcagtgg	tgaaactgca	gattcctaaa	1260
tgtgatctgg	agacgactct	tgctggagaa	atctaccacg	gtcccttggg	tctgtccctc	1320
ccttcaccct	ccacagtcag	ggacaggctg	cgtgggtgtg	ctccccatct	gtgcgtggcc	1380
tcagcgacgc	aggcctgtcc	tgccatttgc	taaaggtaga	gcccggcaga	ttcatttgtgt	1440
ggtgagggtc	tccccagacc	caccaactcc	tgtgtcttcc	catggtgaga	aggggtggggt	1500
ctctctgggg	cctttttttt	tttaggaagt	cactgatgcc	actcaggtgg	gtgcccagct	1560
ccccacctga	tctctggagt	ggcccccttct	gctggaggct	gccccaggct	ggatgccgtg	1620

gcctgcagac ccccttctt gcagtccttg ggcaggcagc acccatgcgc acacgtgcac 1680
acaggccgtg agcactgccc tgtgagccag gtggtggtgg ggggtgttgg ggctaagggt 1740
tggttagggc ccgagtgtt gcgcaccccc ccatccaatt tcccatggtg ctgggatgct 1800
gccgcctcct ggaccctggc gttgaagtgc caccttcac tccctcccca gacagtaagc 1860
tccagacaag ggcaggctgt ggccgtcact ctggccagct gctcgggggc ttggtggctg 1920
ctgggtggtc gcctggactc tgccctcctg tctcctggtg tcccggaggg gccttgctgg 1980
gctggggcct ccaccgcccc attgggcgcc tgactctcag ggcgcagtca gttctttggg 2040
gatggccctg atctctgagc gggactgcct ctggcctttc ttctgcatcc cctacggaac 2100
agcagcctgc tagacgccct gaggaggcag gctgaggggt ggaaggggagc tggccgtgcc 2160
cagcagagac caccctctga tgacggtggg cgtcctttcc agccctctc ggggcatcgc 2220
ttcatccctt ccccatctt cttcctggcc ctgctctcca agtcttgtgt gtgtggtggg 2280
gcctggcttc cctcccggcc tctgcctgt tcccgcccat ccctctctgg ttctctcagg 2340
cctcctctgg gcttgccagg aatgtagggg aataggggg agggggacac aggaaatgcc 2400
tcccctctc tgacaacagc tccagctgca gggggagggg ggaggggaga gcagagtggg 2460
tgagacgagg gagggctgaa ggggggagtc ggcttggggg gagagtgtt tctgcccac 2520
ccaggcactg ggcgtggccc agccccacag acagaacagt tctttcttc ttattttatt 2580
ttttattaga gacagggtct cactctgtcg ccaggctgg agtgcagtcg tgtgattggc 2640
ctcaagcgt tctccacct cagccttcca aagcactggg attacagcag tgagccagt 2700
tgccagcct cttcctaagt ttacaccagt gtgggcatcc agtgagggga actggcctgt 2760
gatgcggtgg tccttgtgac atgtcaggca gttttagagt agggtttgtt aaaacatggg 2820
ttaaattggg cccaccccc agccctccac tcctcagcca ttcaggagaa gcgcgaggca 2880
tggtgctgagc aaaattctga gtctgccttc cacctgaacc ccctctggaa ggtctgacca 2940
cgggctgggt gtggtggctc atgcctgtaa tcccagcact tttgggaggc cgaggcgggt 3000
ggctaagtga gtcaggagtt aaagattagc ctggctgata tggtgaaacc acgtatctac 3060
t 3061

<210> 1530

<211> 3385

<212> DNA

<213> Homo sapiens

<400> 1530

gttgggggga	ggcgcagaga	gcctctcagg	tttgctggtg	tctggcttag	tccaaggggg	60
ggttcaaggg	tcttgtacc	ccacctcagc	tgggacccca	aacctcctca	gtcacctct	120
ctctctccca	cgagcccttc	cactaagaat	ggctatggag	cagggttcag	gaccttcgca	180
ggtgctgcag	cccagccagg	atatggaaac	gggctgggag	cagcggcctt	cccagtggcc	240
ggagcccagt	caggattggg	gagcagaagt	ggtttgggcg	ctggcactct	tccaggggca	300
ggaaccccac	caggtgaggg	tggctgggca	ggggccgcag	ggaggggagg	gcaggagggt	360
ttagggctcc	aacctcatt	cttaggggag	gagctcttag	ggtcaatgtc	agcctctttc	420
tagctctccc	caggcctggg	gaagagggaa	cctcagaagc	ggatgaaggg	aggaccccg	480
ccgtgtgcca	cctccatgcc	acactcacca	tgtcctgtcc	ctctctgtcc	ccctctcggt	540
ctgtgttacc	ctcccaggc	actcgtcct	ctgtggcctg	ccaatgccat	tcctgtgggt	600
ggggactcct	gtggaggcct	ctgagctgct	tcctgggcat	gcgcccttag	tgaactgtca	660
gggtgtggag	cacagtggcc	ctgggtggtg	tttgaccac	ggacccgcac	tccacatggc	720
ctaggtccag	cctctgcctc	cctcacccca	caggccaaa	accaggtcag	ggagggtagg	780
gtgttgcgga	gggcctgggc	ttgggtctgg	gggctccagg	gagctgcagc	ctcctttacc	840
tggctctct	ctctattcct	ggcatggggc	gggggggtga	acctctgaag	acaggtgtgc	900
ctgccctttc	ctgtgtccct	gtcctccact	ccccacatac	acacatccgg	ccctgcctct	960
gcttcctcct	tctactcggt	ctcccaagat	ctggtgatgg	gaatgggatg	ggagctgggg	1020
ccttcctagg	agctggagcc	cagccagggt	agggcagctg	gaccacactg	ggattctaga	1080
agacacaggg	aagaaccagg	ggatatcaga	ggtccagaag	gcagaaagtt	tatttctggg	1140
ggaggacagg	ggatgggtgg	ggtccgtgag	cccctgctct	cctctcccct	atcttgactg	1200
tttcccctgc	atctatggcc	ttgtcccacc	ctcaagccct	ccccagatcc	accctcaca	1260
cactgcttct	cctcccagga	tacaacaatg	gaaacggacc	gggaacccag	ccaggtcggg	1320
gccgaagggg	ctggggtggc	tgggggagag	gtcagggggc	cagggccaca	ctctgggtcc	1380
caacagatgg	gctcttgggg	gttcattcat	tcacccaatc	tcccctgagc	accgtccca	1440
agccaggcct	cggctggcca	tggaggacac	ccaagctggt	caagggtggc	cacggtctgg	1500

actcccgggc caagaaccaa atccaacttt gactgcagtc aggcctggga gggagttcac 1560
acaagacaga aaggcagagg gcaggggtca cgcgagacag aaagggagag ggcagggctc 1620
caggccccag ctcatcccca ctgcaccacc ttccacactc ctgtgtctgc cctcaaacag 1680
gtcctgccgc ccaaaatggc tttggaccag gtaaagaggg tggggacgga agcggggagc 1740
ctggggctga gattctgggc acaggcccag aggaaaggat ccctcacctt ctcattctcc 1800
ccccaggctt tggagggggg ggaaaacccc agaagccagg tgagccactc cctgtccctg 1860
tctccctgcc catttcctat gcatctgccg ctgcttccct agagtccctg atctcccat 1920
tctctttggc tctgtccctt gggatttggg aataggaatg ggtggggagt cggggccttc 1980
ctgggagctg gaaccaggc aggtaaggcc ctggagtctt gggagcatgg aggtcttagg 2040
ggttgggggt tactgatgta ggggcctggc cctggctcctg agcagagagg aagggatggg 2100
tggactcaca ggaagtcctt ccccttctct tcccaggcct gggaggggga ctaaaggctc 2160
agagagcagg cgagcccaa tctctagcct cccaacttgg tctcacaca caaacctcat 2220
tcgacaaacc aatccaggcc tggagcagtg gctaacacct gtaatccaa cagttcgga 2280
ggcagagtta ggtggatcaa ttgagcccag gatttcaaga ccagcctggg caacattccc 2340
aggctggctt tgaaatcttg ggctcaagca atccatctac aaaaaaaaa aacctagcca 2400
gttgtgggtg cacgtgcctg tagtcccagc tactctggag gctgagaggt gaggatcact 2460
tgagcccagg aagtcgaggt agtagtgagt ggagatcttg ccactgtact ccagcctggg 2520
tgacagagag agatcctgtt taaaaaacag acaggccggg ctcagtggct cagcctgta 2580
atcccagcac tttgggaggc tgaggcgggt ggatcacaag gtcaggagat caagaccatc 2640
ccggctaaca cagtgaacg ccgtctctac tgaaaataca aaaaaatcag tcgggcgtgg 2700
tagtgggcac ctgtaatccc agctactcgg gaggctgagg caggagactg gcgtgaacgc 2760
aggaggcgga gcttgcaagt agccgatcgt gccactgcac tccggcctgg gtgacaaagc 2820
aagactccgt ctcaaaaaca aacaaacaaa caaacaacaa ccaaagtaat ccgtggacca 2880
tgcctgttct gagccaacca ggtgctgggg acaggccctc cccaaccagg gccacgtgg 2940
ggcatacagt atgggctgag gctgccccag agctgggctc tgggagttct taggaggcag 3000
tggaggccag ggaggagaga gtggcccaac cctctgagaa actgaaccaa aaggagagtt 3060
ttgaacaaag aaggtacagg ctccagcaag atctcagacc tggccaggcg cagtggctca 3120
cgcctgtaat ccagcactt tgggaggcct aggcgggcgg atcacttgag gtcaggagtt 3180
caaaaccagc ctggccaaca tggtgaaact ccgtctctac taaaaatgct aaaaattagc 3240

caggcgtggt ggcgggcacc tgtaatccca gtcctcagg agactgaggc aggagaattg 3300
cttgaacccg ggaggcggag gttgcagtga accaagatca cgccattgct ctccagcctg 3360
ggcaacaaga gcgagactcc atctc 3385

<210> 1531

<211> 3879

<212> DNA

<213> Homo sapiens

<400> 1531

ttggagtgtt taaactattc gcatttagtg taattattaa tatggttgga tttacatgtc 60
cttttttttt ttttcttttg acagagtttg gctcttgta cccaggctgg agtgcagtgg 120
cgcaatcttg gctcactgca acctccacct cttgggttca agcaattctc ctgacctcag 180
gtgatctgcc accttggcct cccaagtgtt gggattatag gcgtgagcca cccacccgg 240
ccttgctatt agttttctat gtcttatgtc tttttgttt ctcatttctt cccttaatga 300
cttcttttga ggtaaacaca tactgttcta atatactctt aattcctctg atttcattaa 360
tatttttcac cttttagtta tttgattgga tgctggacat tgtgaatttt actttgttga 420
gtaggttttt ggaattcctt gtttctggga tttgttctgg gatgcagtga aattacttgg 480
catctatttg atcctttcaa ggatcaaagc aagtctggag ttgggtgatg gccaggatgc 540
ccaggcccag ggggagcagg caggaaggat tggaaggcag tcaggtgagg actgcaggta 600
gcctctctta gtcccttggg gcacagaact tgctgatata tacaaggttt ctttccttag 660
agtgtataaa cagtttctag tctgggatcg gatccttttg cgttactgag ctttgaatag 720
agttgctggg atttttgtac tattaatatt ctctcaaatt ttttaagttt aaattcttga 780
ctccaggaag catagcatct caccaggac ttagagcctg atacaacagc catgtacagc 840
ccctgggtcc caccgcaagt tgccagggcc ctgtggtgtc tattcagacc tgctttccca 900
atctagaagg tgggtgtgga atgcatgcca attcccagcc cccctccctg cccctggtcc 960
ccgaattcag tcatggtcag tgtctacagc acaaccttct ggcatgggag aaggtcacct 1020
gaggttaacc ctttacttgt agggtcctta atcaatctct ggctcctttg gaaccatgga 1080

cacagaatca gtcctgggtg agaacctata tgtcatttca ggaatcgggtg agtttcaagg 1140
atgtggctgt ggacttcacc caggaggagt ggggtcaact agactcccct cagagggcct 1200
tgtaccgga tgtgatgttg gagaactacc agaaccttct tgccctaggt aaaatcccc 1260
cagccccagg ctgggcgtcg gctgtcagcc ttcttctaca tggtagatat taaggagaat 1320
cccttcagtg ccggccctgg tgccagatat atcatgggggt gggaagcaag gcctgtgcct 1380
tggggcactc atggccaggg gcttcggcca cgccagaagt cccaaggga cagcgtggga 1440
gctggtagca tccttgcttg gtgtttcccc tggctctggg ataggggcag ggagagaaga 1500
gaagaagggt ggaccctgga gccagctgg ctctggaaca gtcctcaagc aatgaagtaa 1560
ggacgtcagc acacgtgggg tcttcagagt atacactggg atttgggttc cagtctgaga 1620
ccctcactgc ttttggcca gaggacctcc tgttcccaga gaggtgtcc acttcacagg 1680
cattgtcctc gttagggggc ggcctgtaag gtcgactggg cctggagagc tgcagcatgc 1740
ccagcccact ttctctccac gagcaggacc tccactgcac aagccagatg tgatctctca 1800
tctggaacga ggcgaggagc catggagcat gcagaggga gtccccagag ggccctgtcc 1860
agaatgggag ctgaaggcgg tgccctctca acagcagggc atttgcaaag aagaaccggc 1920
ccaggagccc atcatggagc ggcccctcgg cggggcgcag gcgtgggggc gccaggcagg 1980
tgctctgcag aggagtcagg ctgcgccctg ggcgcccga cctgccatga tctgggacgt 2040
ccctgtagag gaattcccc tcaggtgtcc cctcttcgcc cagcaacgcg tccccagggg 2100
gggacccttg ctggacacac gcaagaacgt ccaggccact gagggcagaa ccaaggcccc 2160
cgcgagactg tgtgcagggg aaaacgcctc cacgccaagt gagccagaaa agttccccca 2220
ggtgcgccgg cagcgcgggg cgggcgccgg ggagggcgag ttcgtgtgcg gcgagtgcgg 2280
gaaggcggtc cgccagagct cctccctcac gctgcaccgg cgctggcaca gccgggagaa 2340
ggcttacaag tgcgatgaat gcggcaaggc cttcacctgg agcaccaacc ttctggagca 2400
ccggcgcac caccaccggc agaagccctt cttctgcggc gagtgcggga aggccttcag 2460
ctgccactcg tccctcaacg tgcaccagcg catccacacg ggcgagcggc cttacaagtg 2520
cagcgcctgc gagaaggcct tcagctgcag ctcgctgctc agcatgcacc tgcgggtgca 2580
caccggcgag aagccctacc ggtgcggcga gtgcggcaag gccttcaacc agcgtacaca 2640
cctcacacgc caccaccgca tccacacggg cgagaagccc taccagtgcg gtcctgcgg 2700
caaggccttc acctgccact catccctcac cgtgcatgag aagatccaca gcggggacaa 2760
gccgttcaag tgcagcgact gcgagaaggc cttcaacagc cgctcgcgcc tcaccctcca 2820

ccagaggacg cacacgggcg agaagccctt caagtgcgcc gactgcggga agggcttcag 2880
ctgccacgcg tacctgctcg tgcaccggcg catccacagc ggcgagaagc ctttcaagtg 2940
caacgagtgc ggcaaagcct tcagctccca cgcctacctc atcgtgcacc ggcgcatcca 3000
cacaggcgag aagcccttcg actgcagcca gtgttggaag gccttcagct gccactcgtc 3060
cctcatcgtg caccagcgca tccacaccgg tgagaagccc tacaagtga gcgagtgcgg 3120
cagagccttc agccagaacc actgtctcat taaacatcag aaaatccact ccggggagaa 3180
gtcgtttaag tgtgagaaat gtggggagat gttcaactgg agctcgcacc tctactgagca 3240
ccagaggctg cacagcgagg ggaagccctt ggccatccag ttcaacaaac acctgctcag 3300
cacatactac gtgcctggca gcctgctggg tgcaggggat gctggactga gggacgtgga 3360
tcccatcgac gcgctggatg tggcaaagct cttgtgcgtg gttccccca gagccggcag 3420
gaatttctcc ctggggagca aacctgaaa ctaacatgat gtgctttggt gtcagtagct 3480
gctttctgag ctactcaaca aggaaagcac cctggctctc cctggctcct agatccagac 3540
caccttctc caggtgtggg agccttgcct tatcaccccc atcaggtctg catgccaggg 3600
tgctctctct agttaaagtc agtcacctcc ccagaagggc cacactccag gaggagtgtt 3660
gagagtcatt tgaggtagtc ttgccacctg ttttcttga tgggcctgga agttgttgac 3720
aaggggaaag atctttcttg ccaataaaaa gaagggatat cgttgggtgc catggctcac 3780
acctgtaatc ttaacactgt gggaggccaa ggcaagggga tcaattgagc ccaggagtct 3840
aggaccagcc tggacaacat ggtgagacct cgtctctac 3879

<210> 1532

<211> 4130

<212> DNA

<213> Homo sapiens

<400> 1532

tttcttctt gtcaaattct aagcttgttt tgggtgtatag accatgtcat gtatctttgc 60
atctctacca cacatagcaa ggtgccacac acatgtaatt agtacatgtt ggttgaatta 120
atctatgtca ggtgacctta ggtcttctct aacgcagaga ctatttattt gtgtgccttt 180

tattatgtgt ctactacctg ccaggtatta tatatatgta atctcattta gaaagcagaa 240
tttcgcattt tctttttttt tcccccttaa gtgatgggtca gtgaaactaa tgtgaaatgt 300
tataaaggca gagatactgg aattgaagga aaaagaataa ttatctatgt gttagtttgg 360
gtcatccaaa aaacagatgc caagatagga ttaaaagtac aagagattta ctgggggaaa 420
cacctgcaag ggaaaatggg gctgggagct ggaggctgtt ggagagttg gcagaccctt 480
gtggaggagg aaaggccggg ggagcgggga agttttccac tggagtgtgg tgctgagaaa 540
gtttcagcaa agccattggg gagccagtgc tgccccctcag acgagtcctt cccatgctca 600
ggcattggct ggaagcagca ggtgggaagg gtggcctctg catgaatgtg ctgatggatt 660
ttagagtga gccactctgt cccctgcatt tggagaaata catcttcatg actgccacac 720
catagaatca accaagctaa aagttcaaag gtggccttgtg gcacacaggc ctttagcca 780
gttaggcaaa acgagggcct gggaaagaga attcttcctc tcgtcggcag tttgaatatt 840
tgcagtctta gcttggaatg gtctttctgc actagaggga aacctcctt agtgcagacc 900
agcctaaagc caagccattg ctgcctgagg aagctgccat ctctggagca cggtgacatg 960
ccaccaccct ggacctattc ccatcccccg gagcactgtg gcatgtagcc tcttcgtgcc 1020
actgcaaggt cagaaagcac ctctgggcac acctccgtct tttgggtctg cctccccact 1080
agactgagca ttgtgcatag aagctacttt tattctttac atcccagtgg ctcacatgat 1140
agatgccaag taaaatttcc agtttgtact ttaaattgtt tttctggcac tggagatggg 1200
cttgcagtga tccctccatc catgtaatgg ccctgggctc agtggaccat ccagagtagg 1260
cttctccacc atggagctgc cctcctcag gagtctgatg tgagtggctc ttgatactca 1320
ttctcacttc actcactcca tatcacaaga gccaaaggatt tcccagtacc aacattttct 1380
tgggctgctt ttgatggttt tttttcccc ttcctgtcct ctttttccaa cccagaaca 1440
aactgccagc gttcctgggt ggtgttgcta actcagggtca ccctgaggct gccctgtctt 1500
tctcttgctt gttgtgagcc cctccctcta cgcccatgtg cccgaggctg tgccgctgcc 1560
ttgtgcaggc acccaggggt tatgccagtg atttcttgac acaagcagca gcacagaacg 1620
tgtgtgtccc aggttttaggt ttgggaggcc tgccctggaga acagccatcc caggttctgg 1680
gagctttctc aatttactgt tttatccaaa gatgggttgg cctttctctg gacatagtga 1740
gcttccttgg gctagtctt aagcctgaga ctaaaagtgc tcaccatgag ttattagga 1800
ggcctgtaaa atgtaaaggc catgcgtctt ttttgctctg ttaccaggc tggagtgcaa 1860
tggtatgatc atggctcact gcagccctga actccttggg ctcaagcaat cctcctaact 1920

cagcctctgc atagctgtga caacaggtgt gtgccaccac acctagctaa tttttaaatt 1980
ttttagata cagggctctcc ctatgttgcc caggctggtc tcaaactcct aggctcacat 2040
gatcctcctg cctcagcctc ccaaagtgt gggattacag gtgtgagcca ctgcacccag 2100
ccaaggccat gcacctttaa gttctttacc tgggctttac tctaagatgg gaggcctcag 2160
agtgagaaaa gctgctaaga agtgggaagg agcctgtacc tctgggtgatt agggatttct 2220
cttttcgtcc accccattc tcacctccac tggaagtaga cctgtaagaa aaattaaagc 2280
agtttagaaa gggttgaaac tgtttattca cccatccctg ccaaaatttt ctggaacatt 2340
cctagtttca gatgttcctt atatcttaaa acagcataag aactgttttt tgtttttaaa 2400
aaaaaaattt gtagagatag agtctcactg cgttgctcgg gctggctctg aactcctggg 2460
ctcaaaccct cctcttgccct cagcttccca aagtgtctggg aatacaggca tgagtcacca 2520
tgcttggcaa gaaccgctgg ctatagacca tgactttttt tttttttttt ttttgagacg 2580
gagtctcact ctgtcaccca ggctggagtg cagtggcgca atctcagctc actgcaacct 2640
ctgcctccca ggtgcaaacg attgtcctgc ctcagcctcc ctagtagctg ggactgtagg 2700
cgtatgccac caccctcagc tgatttttgt attttttgta gagatagggt ttcacatgt 2760
tggccaggct ggtctcgaac tcctgacctc aggtgatcca cccatctcgg cctcccaaag 2820
tgctgggatt acaggcgtga gccaccacgc ccacctata tacctcacc aagtcgtgta 2880
aataaagcct gaaacttggg aagaggaggc tggactattg aggtcttatt gaggttgctg 2940
tgcaaatcaa gatgatcca tttctaagaa atggctagtc tggtatagaa gctaaggatt 3000
tgtttaggaa agcaggaagc tcttgaatat gaatccaagc tcagtggaaa tgggctgagt 3060
tgaattacat ttagcaggtg gctgctgccg ttctagagag aagagacttg gagggacctc 3120
tgccctcact accaggcaga cctggcttgg cagggctgcct tgagcctcac tggaacagca 3180
gttggttttc ccagaactca cccagaagc ctgtgtcctc tgatagcact ggccagttag 3240
gacaggaggc tttgattccc agagagagcc agcaggactc cactctcatc tatgcaagca 3300
caggctgagg gtggatggca ttaaagtac tgcactgctg agtggggaat aggggctggg 3360
aactctcctg gaagctttca tcatattaaa agtaggcatt tctttaactg caaagagata 3420
cttttatatt ttgtactcag tggttaaggca agattaattg gtaccttcct gcttctgttc 3480
attcctgtat tcatttgagt ttttgctttt acattacagg taaattaaaa gatcttggga 3540
acttggttct ccgacctttt gggctctcca cggaaaattt ccagatcaaa caggattcct 3600
ctaccggctc gtactccatc aatttcgttc aaaatccaaa taataacaga taacaaagat 3660

aacaaaagct ttacaagctg acttggaatt gtgtgctgct tgctgttagc taggggaaag 3720
gccctgccaa tgtttaactt ttaaaagcat cttatctaaa agaaaggcta tccagtagag 3780
cccagtgtc ccttgtccct cttttatgat cagggtgaaa tgtacttcct gatgtaatga 3840
acctaatttg atttccattt taaggtggtg tctgtgcagc tgggtgtccc gattctggct 3900
gtcctatgtc caggaagaag ccattttgtt gaggctgacc ttctgatca tacacacaca 3960
cagcccagca aaagcctctc ctgaaccaa caaacctgtt ggttgggaga ctgcccagac 4020
atgattgatg acgggttccc gcctgctgtc ccctccctga tcacacagct aacgaggctg 4080
cctccagcat ttctgattt cctctgtggt aataaaagct ttctgtgctt 4130

<210> 1533

<211> 2894

<212> DNA

<213> Homo sapiens

<400> 1533

acatctaagg aggagaagaa gcatgagata catctggtac agaagcttgg gaggagcttg 60
ttcaaaactca aaaaccagac ggctgaaccc ctggccccac agcccccagc agggccatct 120
aaggtggagc agctacaaga tgagaccaac cacctaagga aggagctaga gagtgtggga 180
agacagctcc aggctgaggt ggaaaacaat cagatgttga gtctcctgaa caggagacag 240
gaggagaggc tacgtgaaca ggaggagagg ctacgtgaac aggaggagag gctgtgtgaa 300
caggaggaga ggctgtgtga acaggaggag aggctacgtg aacaggagta gaggctgtgt 360
gaacaggaga agctgccagg gcaggagagg ctgctggaag aggtggagaa gctgttaaaa 420
caggagaggc ggcaggagga gcaggagagg ctgctggaga gggagaggct gctggacgag 480
gtggaggagc tcctggagca ggagaggctt cggcaacagg atgagaggct gtggcagcag 540
gagactctgc gggagctgga gaggttgcgg gagctggaga ggatgctgga gctggggtgg 600
gaagccctgt acgagcagcg ggccgagcca cgcagcggct tcgaggagct gaacaacgag 660
aacaagagca cactgcagtt ggagcagcaa gtaaaggagc tggagaagtc ggggtggagct 720
gaagagccaa gaggctccga gtctgcagca gcagccagac cagtacctgg agccccagtc 780

ccacaaggag cttggatgtg cggacaagca ggggtggactc cccaggagca cccaggcttg 840
agtggagaag ctgttggtac aggagaggcg gcaggaggag caggagaggc tgcattgcat 900
tcttttcggg ctgccgagaa cagggagcta aacatcacca tcatctaaga gcgggtcaag 960
aaattgaaaa aaaaacaaaa catttaaggg gttaatatcc tacacaattc atttacttca 1020
tttgaatgtt agagccactt atgtttgtgt ttctaattta tagtttaaata ttatttgtgt 1080
ttctaattta tagtttaaata ttatttgttt ctaatttata gtttaaattt atttgtgttt 1140
ctaatttata gtttaaattt atttgtgttt ctaatttata atttaaattt atttgtaaaa 1200
agttaaata gagtgggtct ttctctcatg ttactctgg catcttttag cattttttta 1260
atttgataat tataggacgt tagcatgcat atcgagtttg cccttatgtg gtgggagttc 1320
aaacacacaa agaccactg tatgcacaca actgttcttg ctggtttggg ataggctgcc 1380
atgctttttt aatgttagta cagcctgtat attcattacg gaattcagat aaaatttcct 1440
tatgttctgc tgttatgttt gatcgaatcc taatcacagt gagctcttca ttagctcaat 1500
atgtggtttg ccctctggaa acagcctttc cccctttttc tgtgtattgg ggatgggagt 1560
aataacattt tggggaggtt tttaaacttc ccagaagagg aaagtggcct gctttggcag 1620
gtgtgtgcag gatagaatat gtttcatttg ttccggtgcc aagaatgagc gctgtactac 1680
ggtagttccc ttaggatttg tatgtgctct aggctcatga agatactgcc tcatgagctg 1740
tggcagttgt actctttttt gatgacctga aaagggatta tttctgagga atgaaaggct 1800
cccatcatga ctgtggatgt ggaaaacctt ttctagctga gagcatttat atctacaata 1860
cattttaaag tcagagttca tgttccctgt tttaatcaca tgactacatg tcccagtaca 1920
caaaagggca ctggttggcg ttctccttaa tgtatttagt aaagatcaga agaaatcctt 1980
taagagttta aatgcccctg gaacaggcat atacaggctc tagtcaagaa tgaattcgag 2040
tgaaggaaag ctgttgaca cctggcattc ctctgtgttc atggagctta tttgaggcta 2100
gaagatggat ttaccatct agacctctt ggctaatagc tagtcttcaa ccatctgaca 2160
taggaattta cttcttttcc ttgaatggag aacactttta aaataataac aaacattatt 2220
ataaactaat atatgtgaga gtacttagtt gaaacaaaaa ggagtttttag tagacagtat 2280
tatactacat ttgaaaatca aggagcagtt tatgcaacgt aaaacgttta caaactgcag 2340
cacaatctac tgttcgtgaa tgtcaaagtg tcatgaggaa agtgtctata caatcacaga 2400
gttatatttc ctcacaaagt tctttacaaa gagtgaaata tgtttttata cctctcagtt 2460
tcagtttagag gcatattttg tgtaatatatt atggcttaaa atggactaaa ggtcctgttc 2520

ttgccttgtc tgaacttgcc gcttttgcac tctttgagtt cagtttaaag acagttactt 2580
taagcccatt ttaaaccctc aggctagaaa tcgtaccact gtttaattagc cacattatct 2640
ggcttaacag tttatcattc tgaaactgag cttacctaata acattgataa attatttcaa 2700
aggtattttt atagttcaaa tcgcttcact tttaccctga cacgtataaa tgactaggaa 2760
tgaccttcag atagcgttta gcaactgtaa ccaatctgac aataatgtgt tcatcaggta 2820
cctgtggatt aaatcacata ctggcatatt taagctgaat gtcagtctga aaaataaatg 2880
tactatatta actc 2894

<210> 1534

<211> 2887

<212> DNA

<213> Homo sapiens

<400> 1534

atttctagag aaaatagcat catgaatctc catataccca gccctcagct tcaacagttt 60
ttaccattta gctaagtttt attttatctg ccctttcatc tgtctattta aaatacgcca 120
cccaccaca cagtgtatta aagcaaatgg aagacatcat attattacat ctagaataac 180
ctctctctaa cagagaagga ctttgtattg ttccttttaa tggaattgat tgccaccatt 240
tgcaaaccga gtgcctcccc agccccagct gctgctttgg aatggaggcc aggggtgcagg 300
ggcctgtaga cagggcctgt gctcaccat gtgctgccgc ccgggtcttg ttgacatttg 360
attttgagc cactggcatc attggagtaa tcatctttgt aatcttcccc agagtcttca 420
tgctgtgag gctcagtagc cttaccttg aaatggttct agggctggat gtggtgactc 480
acacctgtaa tctcagcact ttgggagtct gaagtgggaa gatcattga gctcaggagt 540
tcaagaccag cctgagcaac gtagtgagac cttgtctcta ctaaaatcca aaaaaatagc 600
cggttgtggt ggcagatacc tgtagtccca gatacttgag gggctgaggt gggaggatct 660
cttgaacccg ggaagttgag gctgcagtga accctgatca tgccactgca ctccagcctg 720
ggggacagag tgagaccctc tttcaaaaaa ataaaaacaa aaccaaaca gggttctaaa 780
agactttcca aggagctcaa gtgagatcac atgtaaagct cacagcacca tgcttggcac 840

ttagtaggtg cccagtgagt gggagttggc tgcttccttg ctgcagctgc tgaatacgca 900
agctgaaact catcctgctg ggctccatgg ggctggcatt ttctgcttaa gcaacactct 960
gagaacagtg tcctgagaca ttcaggtcat tgctcgatg atggcactgt tttgaggggt 1020
aagaaagata tagctctggc tgctttggcc agaggaaggg agctgtatcc cgtctaggct 1080
gtgagactca ctactccag tgtgcctcct gaacagggac aagcaggctt tgaggagaaa 1140
ccacagattc ctgggattg acctcagagc ctcttaaaag gattctcgcc tgtttccaaa 1200
tatcatgagc aaccacaata ggggagaaat ctgtccatta tccatacacc ccaaagagac 1260
acctggcaac caggtgtgtt cagtgtccag tttccttgca gcctgttcat gtgggcacct 1320
aacattcaca tagttgcagc catagcatgt gctacatgta tctaacttgt attctgattt 1380
ctaaaatcaa ttcgtgaagc ccattcaatg aagacccatt catgcattca gctattttatt 1440
gagcacctgc tgtatgccag gcacagtgt aggagctgag atgtgagagt gagcaaaagc 1500
cagacttcac ttctgttctt gaggtgtttc cagtgtgga gggagcaacc actaacaggt 1560
aggttaagta aatgcatgat cacagactga ttgggatggc tccatagagg tgatgagcag 1620
ggccatgct ggagaataac caggaggaaa atcctcatgg gctggtagg gaaggcctct 1680
ctgaagaggt gctgtgccag gagggaccag aagcttctac gagaaagcac agaaatgagg 1740
actgcctttt aaggatggca gaggttaaggc tgaggtggga gagagggtgc tgtgtccag 1800
ggctcctaca gaaacttggg tggctggcac acaagtagca agagtgggtc agtggctggg 1860
aagagccaga tctcaactac agggctttct cacagggaca tctgtcccaa acggacactt 1920
ctagagctgg cactgcctgg tcagacggtc ccagaagggg ccttcgagct gcactggggg 1980
ctagaaaggc ctgcagcagg gcggcgagga gcatggactc aggggccaga ctgtgcctgg 2040
atggaagtcc cagctttgct gccttctgct tgccagctgt attaccttaa gggaactgag 2100
tctcccggca cttcagttt cagagctgtg aaataggact tgctgggagg agtagatgag 2160
cattatctgt gctgtgccta gaacagtgcc tgacagaatt gcagagaggc catttaggag 2220
gctgtggcag ggaccagggg tcagtgttag tgggcaaaga gggacgggac agtctgggta 2280
cagcattttg tgacagtttg cagtggcgat gccagagagc tcggttaact ctggggttct 2340
gagcttgggg cagtccaggg ggcaggggct gggaggatgg tgattctgtc atcagcaggg 2400
ctgatcctgg aggaggagct ggttccaagc agaaggtgct gaagtgggtc gggcggccag 2460
gtgagacgtg ccatgaggga gctcagccag gatgtccggt gggcggggga gcagtccgga 2520
agcctcctcg ctacttcata gattcagaac tcttgtgttt agtagcctgc atgatattct 2580

gttgtctgag acttctgacg taaccatggt gcaattttgg gtcattttta ctcttgccctg 2640
gcataaccta gctggctggt cctcaaaaga tcctcgcgac agtgtgttag atcatgtggt 2700
gtgtaaggga agtcctgaaa cctgcagaga aacgtctgtg aataagcaga cctctgtaca 2760
ctgggtgtga gtgctctccc aggcttgaac atacttccca gggctctgggg gcctggaaaa 2820
tactcatcaa gtacagaaca gtaggtccca gcccttagga tttcatagcc cagaaaagca 2880
tcaaaac 2887

<210> 1535

<211> 3315

<212> DNA

<213> Homo sapiens

<400> 1535

tttgctttgg ctgacatgcc cgtcctctgc cccacgcagg ctgttacagg cgctggaacg 60
cggacgggag cgccagctgc gtccgctgtg ggaacggaac cctcccagcc tacaacggct 120
ccgagtgtag aagctgtagg tctgcccggc tcccccggc tcccttctca cagctccage 180
tgtgggagac actgtgggag ttgctgtctg tgtccccacc ttgccccaga gccactgtcc 240
actggggaac agccccggga gccccctctt cccgagtctg ctgggccatt cgggacagct 300
ctgtggtgag ggctgctccg cccctcagc ccctcgcttt catatttccg tcctgagatc 360
ccttcagggt gcacgtgggt gtccccgtgg gctccgtgca cacaggcttc ccacagttct 420
gctatccac agttgctggc ccgggtgcgc cattccccat gaacagaagc tcagggaccc 480
ccgggcggcc acatcctggg gctccgcgcg tggccgcctc cctcttcctg ggcacgttct 540
tcattagctc cggcctcatc ctctccgtag ctgggttctt ctacctcaag cgctccagta 600
aactccccag ggctgtctac agaagaaaca aagctccggc cctgcagcct ggcgaagccg 660
taagtaacct acatcatccg ggctgagcgt ccctggccgc gtgtgcctgt gccaggccat 720
cccgagtcct cactctgcct ttctctcctt ttcaaggctg caatgatccc cccgccacag 780
tcctcaggta acagcagctg tcgcatcccc ctgtgggggt tcccatctct gggccagtcc 840
cagggtgctc tgtgggtttg tccccaaacg ggtttgctg gctctggatc tcggccaccc 900

ctgccccgggt ccccaggaga cccacccaca aggcagggcc agggccggat ttggctggtg 960
ccccctgctc tggatctcag ctggatttgg ccggcgcccc ctgccccgcc ccctttaatc 1020
cccgtgactt ccatgctctt tcctgttccc gagacgtggg gtctgcagga aaggaggacc 1080
caccacgaca gggcagaccc ccaatacctg ctctctcttg aagtccagct ccacccgagg 1140
acagacgcag ccggcctccg ccaggccctc ctgagcagcc atcgcttcag tgggtgctggg 1200
tcaggcggac ccaagagtca gcccggttag gaccatttt atgtgcgggg ccacagacac 1260
aggctgagtg accggcgcac agccacacag ctccaaggcc atgagcaggg ctcacccggc 1320
ctccgtcccc ctgtgcagag gtctctcatg ggggcaggtg accgtgcctt taggggacag 1380
accgttctcc atcaaggctg gacgtgcccc gtccctaaag cagccctgtc tgcaagtgcc 1440
cagcagaccc cacggtgccc gagtgccccg gggctgccag cttcaacagc agacctttaa 1500
tctgactatc ctagagttca gaagtccaaa accaaggggc aaacaaggcc acacgcttcc 1560
cgaggctccg gggaggacgc tgtctgcctt ccagccccct gccggctcag gcatctgtgg 1620
ctgcgttgcc cgtctctgtc ccctggctcc acggcgtctc cccacctct gcgtcttctc 1680
tctctgcctc tctctcaggt gggccctggc cgttgtttca gggcctgcc ggggaacct 1740
gggcgatcac acctgagacc ctgacgtaac cccctgcaaa gccccttctt ctaaataagg 1800
tcacattcga ggtctcggga ctacggcctg cttgtcgccc cctgaggtgc atgatactct 1860
gggacccaca tctctgtctt cggggatcgc ctggcccttg tccaggcccc ggggcccagg 1920
gtgtaaatga gaggacacag ccgggcagga ggaagccatc cctttcccga gctggagctc 1980
tgagggcgcc ttaggggcag ggggcatctg ggttcccacc tggtcagagt aaacagcccc 2040
gggcgcctgt gccatatgcc cactcccag agcctccggt gagggctgag gcctgcactg 2100
tccctgctgt ccaggtccca ctctgacctc gcctgtctct gaccgcttc agtacggaag 2160
ccgcgtacg tcaggcggga gcggccccctg gacagggcca cggatcccgc tgccttcccg 2220
ggggaggccc gtatcagcaa tgtctgacct ggaggccgag accacgccac gcacttggcg 2280
gcagggaccc ggaggccgac cccttggcgg gaaccagcac aaagtgttgg catcgcccgg 2340
cgcccgggac agtcctgggc acagcctcgg ctctgggtcc ctccgcctcc cagcgacgga 2400
cgccaaaggg tcccgggccc cctgaggctc ctccccacca cagccatctc gtttatcgga 2460
ccaggagcag gcatccatga gacctcagag cttcagatcg aggccttggg gggctccgggc 2520
ccccccagga aacacggtga ggccccagcg cctgcagcca aagctggcac gatctatggg 2580
gcagggtgccg ctctgcctag aaaagccagg ggctctgctg ccgtgccctc cagagccac 2640

agcgggcagg actcctccag caccaccaca cccagtggcc cgagaccct ctgagaacag 2700
 tgaggctggt cctcgtgccg ttccagccgg tgcccggcca gtggggagga cacagcctag 2760
 gaaccagctg cctgagacca ggggtgcctct gggctgtcct cccgcgtggc ggagacccca 2820
 agcacgcagc caccatttc cggagctgca ggatagagct tcctcttgat ctctgttttt 2880
 aagcagaaat tcattgtgca gaaaagtcct ccagagctct gtggccccgc tcggatccgc 2940
 tggaccccca tgcctggctg atccctgccc acgtggggca ggcccacatc taacccccac 3000
 aagtcactgc ctactgcac ctgccaaggc tgcctggcg ctgagtcctg gggtcctcc 3060
 cggagtctct gggagaaagg cgccgtcgtg gccgcctccc gcacgccagg cccgggctcc 3120
 accgtgggtc tcagacgcc tgcggcaccc gcaccgtctg ctttagcatg ggacccccat 3180
 ctgaggggtg gcctggcctt cggggtcctc acgtccttt gcgaagtcca ctgtgggtgc 3240
 catcatggtc tccgggacct gggccagcgg gaacgtgggg gcaactgggtg tgctgatata 3300
 aagtcggcat tactc 3315

<210> 1536

<211> 4052

<212> DNA

<213> Homo sapiens

<400> 1536

ataaattaaa acaacaaaac gtttcacct tcaatgacgg tgcatggtat cattgtctcc 60
 atttcagatg aggacactgg agcccagaga cattaaagtc ataaaacaag cagtgagtag 120
 ccagagtgca aaaccaggtc tggcctgggc caaagttcat tcttttaatc acaagactca 180
 gtggacacat gtcaaagcat caactacata catgtctatg ggcatgtatg tgtccactca 240
 tacgccccga gttggctcaa ttactcttc aaaagttaaa aaaaacaaaa gacaaaaaaa 300
 tcttaaagcc atctattcca ttctgaaaat tttttccctc attaattctat gatattcacc 360
 tatgttgaaa attattctat aaagctccta aaagaaggca cagcaacaca aattttaaaa 420
 gaaaatagca gggaaataat tataccaaag aactttggag gctgaggaaa gccactgcat 480
 gcaaagcata cttctgagct ttctggcaac atatgccaaa agagaaaggc aatgggtttt 540

acagccctca aatgaaatga ggagacacct gcactagctt ctgctattac tctcttactg 600
cagaggaaac agctatgact tctgaagcat ttttaataact gcttccatgg agggctcaac 660
cataggccag tctcaactag agtcacggaa atagcatgaa gtttaaaggc ttttggaag 720
gcctgatgtg gagccccaga tatgtgactc accatcttga ggaaccagag tagattatat 780
aaactttctg tgcctcagtt ttctcatgta taaaatgagt gaaaacacac ttattttgca 840
gttgactga aacttagttt agacattaca tatggcaagt gcgcaaagg atggggcaca 900
aagacgggat ctctaacctc tctccttatac aggcctgggc ttctgcggcc ctgcagagac 960
tgctgtcatc tagagtgaag aggcgaggac tccagacaca gggcattatc ctagccctcc 1020
ccttctcac tgggactgga ggaattggag agacttggac acagacacct gcccttctcc 1080
cacaacaaac cagacaacca tattcctttg ccatcttgta ctgcaaattt atcctctagg 1140
ccaggggttc tcaaagtgtg ggccccagac cagagcatca gcatcccctg ggaacctgtt 1200
agaaatgcaa attctcaggc cccaccacag acctactgag tcagaaactc tgagggtgag 1260
atccagcaat ctgtgtctta acaagtcctc cgagtgatcc caatgcagcc tgatgtttga 1320
gaatcactgc tctagaatac acatttcatg agggctgggg tagtttgac tgctgcatcc 1380
ccagtaatag aatgatgtct gacatatagc aggtcctcaa taaatatctg ttgaatgaat 1440
gaatatatta aataatggat gaatatgtat gccttctctc ccgaaatgag ctccttgaag 1500
gtagggatgg agacattaat ttttcagctg tagaatccaa caaatagtta ataagccct 1560
acactgggtcc aggccaacac ggtgcttagg taccaggaat gtaaaatagg atccccaacc 1620
ctcaagaaga ttgaccaat tattacgaac agagttttaa aataattaca ctatcatgga 1680
acaattaatg cttgaaatga catataaaaa gtcaagattc taaacttcat acactttatt 1740
atgacaacta tgtaatacac atacataaac tatgcataaa aacagtcacc aaaatgaaaa 1800
cagcactgta tttggggagt ggggctataa gtgatttttt tctattactg tgtaattttc 1860
aaaatttact taaggggcat ggatgttact tttagaattg aaaaagtaaa tattgtaaaa 1920
attcctcata gaggataata tagtaatgga tgtgaaggca tagacatgac agtgacaatg 1980
gtgattatit ctgcctgaag gggaggttga gaaaagtttc tccgagtaga tcagggatgt 2040
aacaatgac gtggtgtaac acaaaaggaa gaataagaaa tgtggcagaa ctggagcatg 2100
catgcctcac cttaaagcat tcaaatccaa tttttttttt tccaaaatgc catgctagac 2160
aaaacctatt tgggacctac tctgcagaag gctttgaagg atgaataaga gttcagcaca 2220
tatgtaaagg aaaaggagag ggcaatccat gtaaaggcaa ggaaggatca tgatgggcaa 2280

aagcgtgaca gtatgcaaca gcctgggtgtg ttgaggaaat ttctagaaat atttctggaa 2340
catgacatga gaaaccaaga ggagcccaga aatgaagctt gactagacat gacaaggacc 2400
ggatcacata tggccttggga tccatgccccg caaaggctct cagttcaccc tgcaggccag 2460
catatccgac tctcccacca cagtcataac ctcaagagca gaggagagtg ggagtctgag 2520
ggaaaactgc aagatttctt cgaatgctca tcttttacct tcaacttcag cacaaatttt 2580
gtatcttata ccatagtgtt acctaggatc caaactttaa aaagatgtca aagttaaagt 2640
ctgcccttat cctatgcatt ccagggaat tcacaccccc aagaagagga agcatatttg 2700
tagctctgtt tatttccttc aaatagattc ctggaagtag aattaatgaa tgaagggata 2760
ttaacttttc aaaggcttgg cagaggctgc caagttgttt accaaaaagg gtgcgtagtc 2820
ctttttaact agacgaccac atttagattt tatgaagatc aatatttggc tagatctagg 2880
ggccacgact cttacagttc tgtcttacc tagtatagac actttcctct ttttcagaaa 2940
gtcatttgac cgtgtactta tggctaaagt aaatcctgtt tctcattctt gcatttataa 3000
cctttactga gccagtctca cattcatcat ggtgggtgggc atgcgatgta ttcacaggg 3060
ttcatccccg gctgccagct ctctccact ctacactccc cttggtgact tcctctactc 3120
acatgggttt agctacaaat cagatgttca ttattcctaa gtgtgaacc ctagccctgg 3180
ctttccttgc aagttcagac ctacacagaa gacgatcaca gctgacgggt ccgctgttga 3240
tctggtctca ccagctggaa tcacagtatc ttcttccctg tttctaattc tgttgtcttg 3300
ttcaccacac cctaccat ttatcccca gtgtttctgg aattacttc tccttctcca 3360
taaagtgacc atccaagctc actttatttc aagccctcat catctgttgc tggacatcac 3420
catgacctca ggcatgccca gggcttctcat gagcatggaa ccaaataac atggaagaac 3480
aggtcatgag gagccaggtc acctcagcca tggagctccc cacagactcc cagcatgcc 3540
cacaacatct ctaacaacag cgattacagg aaacagcaac tattaacatt gcacagctct 3600
tctacaaaga actttcacat gcattccctt aggcctcaaa atcatacctt acagaagaga 3660
aaactgctta agacattctg tgactgggtc aacctcacag aactaccaa agccatgcct 3720
ggctttcgct ctgagtatcc taagcccaac ctgatgcctc ttcaacgata ccactctttc 3780
cacttcagat aatctgacct gtgccaaagt gccaggtgg atgcctgttt aaactgatat 3840
acaccctcac ccacttatt ctcatctctg ctgcctgtaa gaaccacct gcccacaaata 3900
cttaaagagt aacaatttct gggtgaggca ctgaaaatta aacatggctg ttttgactaa 3960
tccacaactt cactcagttg ctctataata agtaaggaca tgctccactg taactataat 4020

caggaatcat gatgtgaaaa atatttcttt tt

4052

<210> 1537

<211> 2738

<212> DNA

<213> Homo sapiens

<400> 1537

caattgtaag tgccaaaggt aacttaattt taattatttt aatgtgttat ttactgggtc	60
acagcatcca cgcccactgt ggaacatttt agggccatgt tatgttacga ccatggggca	120
gttaggcaag gcaccaggaa caacagttcc catactcttg caccctaatg ccagttatca	180
tcattttctta ctttgggtcag ttagatctat taatagaggc ctggtgggct cagctaatgc	240
gcccagagtg gcccagctca aagcacaagc ttgccagcag gcagcagcac agctcaaac	300
gcagcagaac ctgttggcaa gccacagcca gagaagaaaa gtcctggtgg cggcgggtcac	360
caccagact ctctgcttgt tgtgccattt gtcttgcaat ttccccagg gaggtggcat	420
cagctcccc catcaaaaat tgggttttga tatccactct ggcacacaca aaaatgatgt	480
gttctagaac cccacagggt cagcatctgt ggggtctccat ggtcctagcg gtgcccacgt	540
tatctgccct tgcagcggaa aaactcggat gaatgcgagg tgtgctgtca agggggacaa	600
cttctctgct gcggtacttg tccacagatc ttccatgagg actgtcacat cccccctgtg	660
gaagccaaga ggatgctgtg gagttgcacc ttctgtagga tgaagaggtc ttcaggaagc	720
caacagtgcc atcatgtatc taagaccctg gagaggcaga tgcagcctca ggaccagctg	780
gcttctgact ttggccagggt aggacttgac ttagaggcag aatttgaaaa agatctcaaa	840
gacgtgctcg gttttcatga agccaatgac ggcgggtttct ggactcttcc ttgaccctgt	900
tctgtaaaga ctgaagcatc cccacctcag gattcagctg atgggaccct ggcttggact	960
gttgattgcc agtgagtctg ggatgtaatt ggctgccctc aggacccaaa cccagacact	1020
tcataggatt atcacaccct ccatctttat tctttctttt tacctttaaa agtctatata	1080
tacattaaaa aaaaaaaaaa aaaaaaaaaa taatacttcc ttaataccat cagatacccc	1140
atcatagttc acattctccc cactgtctca taagtctttt tagagttgat ttgttcaaat	1200

caggatctaa acaagttcca cacactgcat ttggctctcc tgtccctatg tctcttttaa 1260
gctataaatt gtcattgatt tattgaagaa ctcagggttt tggctcctatt acattttttg 1320
caatctggaa ttttctgggt gcattttctt agtggtatag tcctctcttc ctctcatttt 1380
ttgtaagcta gaagttagat ctagaagctt gctttaactc aggttttgag gggtttgttt 1440
tgatttgggg gtttgggggc acatgcaggc ttcacagggg aatttagtat tattttttat 1500
gttaagggtg gcagcagggt cacgtgttat cagcctgac atctatcacc tgatgggttt 1560
agcaatacct aaatccgtga tatcatcaga ggttgcaaaa tgatgagatt caggtttttt 1620
tttacataat tattgggtcag aattattctg caaatagctt ctctttaaca gtattcggtt 1680
accttgaaat acaggttgta caaaaaatag gataaatgct tgttttttta ttagcaatg 1740
tccaaaataa tgaattgatt tcccagtatc ctctaaaggt aaccagggat tttttttatt 1800
taattatctt gaaccacat atttaaatat acgtagtatg ctacaaacca ttgcagttaa 1860
tacctttatt gatgcttgag ttgccactt tttctttttt tttttttttt tttttttttt 1920
ttgagacagg gtctcactct gtcaccagg ctggagtga gtggcgtcat cttggctcac 1980
tgcaacctcc tcctcctggg tgcaagcgat tctcctgcct cagcctccga gtagctggga 2040
ttacaggcat gtgcaagttc cccactttta gtgagaaact cctcaatttg cctcctgagt 2100
tgttttgaaa tgacccaga actctttgat ggtgtattag ctatctattg ctgtgtaaca 2160
aatgacctca aagcttagct gcttaaaaag aaaaaaacat tttattgctc actattctgt 2220
ggatcaagaa ttcaggcatc atccatgagg atgcttcct ttgctccaca tggtactggc 2280
agacccatt catacttgca cactgtcact tctgccaca tctattggtg aaagcaagtc 2340
acagggacag attcagaagg agggagaata gaccctacct cttgatgca tgggtggcaa 2400
agtcacattt caaaggagaa tgttgcttgg gaagaaacat tgctgctccc atcttttagaa 2460
gcaatctacc atagttcacc ctctggccac agtagttcac atctttccca aatgcaaagg 2520
acactcctct cccacagaa gtctcactct ctgcagcatt ggaacaaagt ccaggacctc 2580
cttatctaaa tcaggttcag atcagataaa gcttcttcgg gctgggcaca gtggctcaca 2640
cctgaaatcc cagcacttta ggaggccgag gcagggtgat cgcttgagtc caggagtta 2700
agaccagcct gggtaacatg gcaaaacctc atctctac 2738

<210> 1538

<211> 4055

<212> DNA

<213> Homo sapiens

<400> 1538

cagtgttcac agatgtgaag caagataatg gagatctgtt ggaaaacaag catggtgaat 60
tctggttaga gttcaatagt ggttcattat tttgtgtgac aaaatatgaa ggttttgatg 120
acaagcacta catttgcctt cattctagca gtttcagtct gtaccataaa ggcatagtgg 180
atggagtgat tctcccgaca gaaacacgac ttcccagctc aacccgcca cactggttgg 240
aacctactat ttattcctct gaagaagatg gcctcagtaa aacttcttca gatggagtgt 300
gaggagacag tttgaatatg ctgtctgttg ccgttaaaat attgtctgat aaatcagagt 360
ccaatacaaa ggaatttctc attgccgtag gactgaaagg agccactctc cagcatagaa 420
tgcttccttc tgggcttagc tggcatgagc agattttata cttcttgaat attgctgatg 480
aacctgtttt gggatataat cctccaactt catttacaac ttttcatgtt catctttgga 540
gctgtgcact tgattataga cccctttatt tgccaatccg atctcttctt accgtggaaa 600
cattcagtgt ttccagtagc gttgcattgg ataaatcttc ctctactctc agaataatct 660
tggatgaagc tgctttacat ctatctgaca aatgcaatac tgtcactata aatctgagta 720
gagattatgt tcgtgtgatg gatatggggc ttttggagt t aaccataact gcagtgaagt 780
ctgattctga tggagagcaa actgagcccc gctttgagt acactgttcc agcgatgttg 840
tccatatcag aacgtgctca gactcttgtg ctgcgttaat gaatctcatt cagtacattg 900
caagctatgg tgacttgcag acacctaaca aggcagatat gaagcctgga gcctttgaaa 960
gaaggtctaa ggtagattcc agtggtcgat catcctcacg tgggccagta cttcctgaag 1020
cagatcaaca aatgttacga gatctgatga gtgatgctat ggaggagatc gacatgcaac 1080
aaggcacctc gtcagtaaaa ccacaggcta atgggtgtttt ggatgaaaaa tctcaaattc 1140
aggagccatg ttgttcagac ctcttcctgt ttcttgacga gagtgggaat gtatcccagg 1200
agtccggccc cacctatgcc tcattctctc accatttcat cagtgatgca atgacaggtg 1260
tgcccactga gaatgatgac ttttgcatc tttttgcacc aaaagcagcc atgcaggaga 1320
aggaagaaga accagttata aaaatcatgg ttgatgatgc aattgtgata agagacaatt 1380
atttcagtct gcccgtaa aagaccgata cgagcaaagc ccccttacac tttccattc 1440

ctgtgattcg ctatgtggtg aaggaggtct ctcttgtctg gcatctttat ggaggaaagg 1500
atthttggaac agtccctccc acttctccgg ctaaaagtta tattagtccc cacagttcgc 1560
cttctcacac acccacgaga catggacgta atacagtatg tgggggaaaa ggaaggaacc 1620
atgacttttt aatggaaata cagctaagca aggtgaagtt tcagcatgaa gtctacccgc 1680
catgcaaacc tgatttgtat tccagcctct cagaacaccc agtctcccgg caggtgttca 1740
ttgttcagga tcttgagatt cgagatcggt tggcaacatc acaaatgaat aaatthttat 1800
acctgtattg cagtaaagaa atgcctcgaa aagctcactc caacatgttg acagtgaag 1860
ccttacacgt gtgtccagaa tctggcaggt cccacagga gtgctgcttg agagtgtcgc 1920
tgatgccgct ccgcctcaat attgaccagg atgctttgtt ctctctgaag gatttcttca 1980
caagtctttc tgcagaagta gagcttcaaa tgactccaga tccagaagtt aaaaagtctc 2040
ctggagctga tgtcacctgc agtttgccaa ggcatttgag tacctcaaag gagccaaatc 2100
tggttatttc tttctctggg ccaaaacagc ctthccaaaa tgatagtgcc aattcagtg 2160
aagtggtaa tggcatggaa gagaagaact tctctgctga agaagcatct ttagggatc 2220
agcctgtgtt ttttagagaa tttagattca cgtcagaagt tccattcga cttgattatc 2280
atggcaaaca tgtatcaatg gatcagggtg cgtagctgg gattttgatt ggtctggctc 2340
agttaaactg ctctgaacta aagctcaaga ggctthccta tcgacatggg ttactaggcg 2400
ttgacaaatt attctcatat gcaatcactg agtggcttaa tgacattaag aagaaccagc 2460
taccaggaat cctgggaggt gttggacctg tgcattcact agtacaatta gtacaaggcc 2520
taaaggactt ggtctggctc ccaatagagc agtaccggaa ggatggccgc attgtcagag 2580
ggthttcagag aggcgctgct tcctctggta cctcgacagc gatggctgct ctagaactca 2640
caaacagaat ggttcaaacc atacaggcag ctgcagagac tgcttatgat atgggtgtctc 2700
ctggtaccct ttctatcgag cccaagaaga ccaaaaggth tcctcatcac cggttagccc 2760
accagccagt agacctgagg gaaggtgtgg ccaaggccta cagtgttgtg aaagagggaa 2820
tcacagacac ggctcagacc atthtatgaaa ctgcggctcg agaacacgag agcagagggg 2880
tgactgggtgc cgtgggagag gttctgcgcc agattcctcc ggcagtgggtg aaacctctga 2940
ttgttgccac agaagcaacg tcaaactgct tgggtggcat gagaaaccaa attaggccag 3000
atgtccggca agacgagtca cagaaatggc gccacgggga tgactgatgg cttggaactg 3060
acagtgtgaa gataaggaga gtggaaccag gagctcagag tcctgacagc agcttcagag 3120
gaagctcggt taatthttat gtgctcatct caggaacaaa agcattthtt agttaaataa 3180

ttttaacatca aaacaacatg caaccaaaaa cttctgacat ttatagttga tacttgccta 3240
 tagaaatggt tggaggctgg tgtcaaaggt ccttaaagca ttgctgcca agttagtga 3300
 aggctcactt ttgttaagat gactgtaatt ctccttgta ccgacgagag atcattggaa 3360
 gctgccttct aacactttgt gtagctctgt ggagttggat tttcttaagg tttaaaaaga 3420
 atcacagctt cggaactttt aactgaaaat gagagacaga agccacaggg gaagcaaagc 3480
 aaataggatt ttcaatataa atatcagtgt ggaaaaataa cctattctgt tgaatttagt 3540
 gttcatgcac ttgagaacaa cattatttcc atttactccg aaaatccttc tgtggggggtt 3600
 tgagaaagtg aatgttgag acatgttctg ttgtgttgca ctttatcctg tgtttatgtg 3660
 tatgtgtttt tagattaatt caagttgtgt gctatatattc ttgtataatt tacaaagtta 3720
 cacaaaatat aaagagcagt aaacttgtct gaaagttttt ggcaaaggaa ggtaacttca 3780
 atgtaatagc ttcctttaag agtacaggaa aatgcattct gtaatgaagt ggggccccatg 3840
 taattgttta tattttcagt ttttaagcagg tatagtgcag gcttgtagg aatgtgtgga 3900
 aggggaagatt ggaagtgatt tttcctcttt taaaagtaaa caaaattctt caaatatgcc 3960
 ctagttaact atttcagcat accattttta cttggttaac agtgtacatt ttgataacct 4020
 atcaggaatg aataaagtat ttttatttaa aggtg 4055

<210> 1539

<211> 3069

<212> DNA

<213> Homo sapiens

<400> 1539

aaaattcact ctggtataca gttctataaa gctctgataa atgtgtagag ttgtgtaacc 60
 accaatgcaa ccaaggtaca gaacagtcct cttagcctct ccctaccaa tttattcctg 120
 ctactttgta gtcaaaacca gtcccctaca cccaaaccct ggagtcact ggtttttttc 180
 ttcgttctct tttttttttt ttttttgag acagagtcta gctctgttgt ccaggctgga 240
 gtggtgcagt ggcgtgatct cggttcactg caacctccgc ctccagggtt cgagcggttc 300
 tcctgcctca gcctcccag tagctgggat tatgggcgcc cgccaccacg cccagctgat 360

ttttgtatatt ttggtagaga tggggtttca ctgttttggc caggctggtc tcgagctcct 420
gacctcatga tcctcctgcc tcggcctccc aaagtgctgg gattacaaga gtgagccact 480
gcgcctggcc tttttctttg ttcttatatt tttgtctttt tttttttttt tttgaaacag 540
agtctcactc tttcactgag gctggagtgc agtggcgtga tcttggctca ctgcaacctc 600
cacctcctgg gttcaagcga ttctcctgcc ttagcctccc gagtaacagg gactacaggt 660
gcccaccacc atgctgggct aatttttgta tttttagtag aggcgggggt ttctccacac 720
tggccaggct ggtcttgaac ttctgacctc aaaagatccg cccgcctcgg cctcccaaag 780
tgctgggatt ataggcatga accaccgtgt cggccatat attttcgtct tttgaagact 840
gttatataca tgaaattata tggtatgtag cattttgaga gcgacttctt ttgctatgag 900
taatacatatt gagattcatc catatttctc agtatattaa tagttcttat ttctgagtca 960
ctccattgtg tggatttact attgtttgtt cccagttga aggatgttta ggatctttgc 1020
agttttggac aattacaagt aaagctgcta taaacatttg tatgcaacat tttgtgtttt 1080
catttatcta tagtaaatac ctagagttgg attgctggga tatatggtaa gcatatgttt 1140
gacattttaa gaaacttcta aactgttttt caaagtggct ctaccatttc acattcccat 1200
cagtatgaaa gtttcatttc cacatcctct ctagtacttg ggggtgtcag tttagttttt 1260
taatttttaa attttttaat ttttttaata catttaaata gagatgggggt ctactgtgt 1320
tgaccaggat ggtcttgaac tgctggcctc aagtaatcct cccatctcgg tctcccaaag 1380
tgctaggatt acaggtgtga gccaccatgc ccagccagg tttttgacat taagtatgtg 1440
gtggtatctc atcgttttta tttgcatcct ctaatgattt gagcatattt tatatgctta 1500
tttgctatct acatatcttc tttggcaagg tgttcacatc tcttgcatat tttggattgt 1560
tttattatatt ttgaattttg aggattatat gctggataca ggggtgtttt tttttttttt 1620
tttttttgaa acagagtcct caccaggtt ggagtgtagt ggtgcaatct cggctcactg 1680
caacctctgc ctctgggtt caagtattc tcatgcctca gcctcctgag tagctggaat 1740
tacaggcgca ggccaccatg cttggctaac ttttatattt ttaccagaga caaggtttca 1800
ccatgttggc aaggctggtc ttgaactctg gacctcaagt gataacccg tcttagcctc 1860
ccaaagtctt gggattacag gcatgagcca ttgtgcctgg ccagtatctt gtcttctcat 1920
tctgtaaacg gtgtcttttt ttcatatgg gaaagcttta ttgacacatt tgtttttatt 1980
tttaaaaatt atggtaaaat acacagaaca taaacgttac catctgatat ggtttggctg 2040
tgtccacacc taaatctcga attgtagttc ccataatccc cacacatatg taccacattt 2100

tctttatcca gtctttcggt gatagacatt taggtcgatt ccatgtcttt ggtattgtga 2160
 atagtgtgc agtgaacata tgtgtgcatg tgtctttatg gcagaatgat ttatattatg 2220
 cataacaaa actgtactta ttaaacaata acctcccaac cccttctgcc cacaacctct 2280
 ggcgactgcc atgctacttt ctgtctctga atttgaatac cctgatagtc atataatatt 2340
 tatctttttg tgactggctt atttcacttt gcataatgta ttcaagctta atctgtgttg 2400
 tagcctgcgt cagaatttct tttcttttta atgctgagta ttattctatt gtgtgtatat 2460
 accacatttt atttatccat tcatccactg atggacatgt gcattgttcc caccttttgg 2520
 ctattgtgaa aaatgctgtt atgaatatgg gtatggagat ctctccctt attttgagac 2580
 aggatctcac tgtcaccag gctggggtgc agtggtgtgc tcataggta ctgtagcttc 2640
 gacctcctgg gctcaagcga acctcccacc tccgcctctt gagtagctgg gaccacaggc 2700
 atgtgccacc atggctgtta aatttattaa tttgtttttc tatggatcat gctttttgtg 2760
 ttacatcaga ggagtctttg cttaacatga gatgacaaag gttttctccc atgtttcttc 2820
 ctaaaagttt tatagtttta ggttttacat ttaggtctat gatccatttt gagtcaattt 2880
 ttgtatatgg tacaaggtat gaatctatgc tttttaaaaa aatatggta cccaattttt 2940
 ctagcagtat gtgctaaaac tttgctaaag tcaactagtt ctagtagctt tttttgcaga 3000
 ttttaaccaga ctttctacat agacaatcat atcttctgtg aataaacatg gttttatttc 3060
 ttcatgtct 3069

<210> 1540

<211> 2923

<212> DNA

<213> Homo sapiens

<400> 1540

aaagatactg gggagtggga gccgcggggt tcagagcgat gattccccca caggaggcat 60
 ccgctcgacg gcgggagatt gaggacaagc tgaagcagga ggaggagact ctgtccttca 120
 tccgagacag cctggagaag agcgaccagc tactaagaa catggtgtct atcttatcat 180
 cctttgagag ccgccttatg aagctggaga actccatcat ccctgggcta ttccagacac 240

agagcagagg gacaggattc gccaggccca gaagaccatt gtcaaggaga cctacggggc 300
ctttctacag aagtttggca gcgtgccctt caccaagaac ccggagaagt acatcaagta 360
cggggtggag caggtgggcg acatgatcga tgccttttc gacacctctg cctgagcctg 420
ctgctagccc tgcctggttc caccagactg gcgtgtcatt ggacagataa accagtcccc 480
tgttcccagc cgaaccagca ctctcccga agcctggggg cctccacac cttggctttt 540
atgaccctga tggcttctga aacaggaaaa gagagaagga agacagaggc ctgtgcccac 600
tgctgtcca tgtgtacaa gagcagcagg gcagaagggc cctccctcca gcctaggtca 660
gaggtgggga cagagaactc ccctacagcc cagagatgtg gcagggtca gagaagcagc 720
cagagctcct ggaggaaagg cagtcgggac tgacccctc tcttaaaaca cattcccgc 780
cgcccacagg cctgaggtct gggacctttc cctcccagga gtcccctagg tggctggggg 840
aggcaggctc actggccatt ttccctagag tccagcacac tgcaggaggc gttcggagga 900
ggagtccgc cccacctct acagccttc tcaggccct gtctctggtc cccagcctca 960
gtgcctcttg gccagggcc aggcagtcgt ggttgcagaa ggagcaatta ggctgcctgc 1020
ctgtgggctg ggagacaggg acaatgggga aaagttaagg agcaaatgg gggttggaag 1080
caaaaaatag ggccccacct atttaggacg agattgaaga ctgacccttg aggcacactt 1140
gcactggaga tgggtttatt tcacgctctg tgcttgtgtg ctagcggagg gagagctcag 1200
ggtggcttaa tccagaggcc ctgtcatggc ccgccccag ccatgggaaa gcaaacttca 1260
tcctaagtg tgcagcccag gccctgccc ttacagtct aggccgctg ccatgggggtg 1320
cagcctctcc aggggctgcg tcagacttgc acgtgcca catccagatt cctgcaaaga 1380
cgaattgggt gcacagcacc ccaaccacat acacaggaa gaagatgcgg tcagcagtct 1440
caggccagct tctctgtgac ccctttactc ctctggaggg ctctgtgggg agagatacag 1500
ggaaaggagc tgttcttcaa ggtccctca acatgagcgg aagagcgaac cccaggggtc 1560
atcagcctgt atcgcttctt ttcttagatt ctcagctgat gaaaatttgg gtctggccc 1620
tttcaggcca tcttcagttg aagaaacacc ctcttaggct gtgcaaggca tgggttatca 1680
ggggattgag gtcacctggg acttcaggga ggctcagctt gctccctgcc ccagacctgt 1740
ttcttctaag ggaggaggac atggtggaga ccagggacag gagagccagc aggggtgatg 1800
caaggggct ctaccacac ctggacctc gtgccctcac cccagcccta ggtgtgcacc 1860
taggcctcat tccttacc cagccccctg cccaccttca gcaggatgag gccctgggtt 1920
gccgtgctct cgctgttccc ctctcggggc tgggctgggg ccgctcttgg cccaaggtt 1980

gccccgggcc agcagcccag ccagcagcac agtctctatg gtgctgagga agagcagcag 2040
 cagcaggatg gtgaagtagt aaactggggg aggcagggca cagggagatg ctcaggggcc 2100
 agtccctgtg tctctggtgc ccagcgagct gagcaccagt gggtgaccgg ggagaaacag 2160
 ggcagactgg gtaagggagc agggcttact gagcagtggg ttgcaggagg aggagctggg 2220
 cagggcctgc accagggagg agtggaggac gaggttaactc agcagcaatg tcaccttgta 2280
 gcctatgcgc tcaatggccc ggaggggcag caaccccccg cacacgtcag ccaacagcag 2340
 tgcccttgca ggcaccaaga gagcgatgat ggacttgagc gccgtgttct tcagcctcag 2400
 ctggaagggg aaaagtcagg gccttcccg cgggggggaa ggaggtgggc atcgggggca 2460
 tggggcctgg cctctggccg tgcctcctca ctcccacccg cctccagcag ccctctgtcg 2520
 gcctcctcgc gacttgactc accgtcacct ggaagcaggg caccagctgc tggggtggga 2580
 cttgggtctt cagatcataa actacgtatt ccctcttgac actcacaatc tcgttcacca 2640
 cgtgggcctg gaactctaac tccatcgctg aggggtggga atgagaacta tgaaccagga 2700
 aggagagatc ccagctgcca agtctggggg tagcagactg gagcccaggg gtgatggaga 2760
 cttttgatgg cttttggcag ggacagactt ggacacaaaa ccgatccata gaagggttc 2820
 ccaaaccttg ttttgaaca tcccaaattg tctccagttg aaggaaggcc tttatcagat 2880
 tcatagatga gctttcattg taaaaataaa tgtactttgc atc 2923

<210> 1541

<211> 3316

<212> DNA

<213> Homo sapiens

<400> 1541

ttttttttct ttctttttct tgagacagag tcttgctctg tcgcccattg tggagtgcag 60
 tggcaagatc tcagctcact gcaaattcca tctcccagat tcaagtgatt ctctgcctc 120
 agcctcccat gaagctggga ttacaggcag ccaccacat atccagctaa ttcttttatt 180
 ttttagtagag atgaggtttt gccatgttgg ccaggctggt ctcaaactcc tgacctcaag 240
 tgatccacct gcttggcctc ccaaagtgtt gggattacag gtgcgagcca ctgctcccag 300

ccaagtattc aataattttc ataagaaaag aaaccaacag tcagctgact ctcatcctag 360
aaattctaaa ctactatttt ttttccccct ggataaagtt gggtttttag aaactgatga 420
tttttttagta aacttccctg gagtaaccaa ctgagtcagt gcctttatta gttacaaata 480
catgtgatcc ctaaattctc acctgtagga tctaattctca aaggcttggg ccctgagact 540
atgcagctat aaaaattggg taggtaccaa gttgatcaca aaatgggatt atctttctaa 600
gtaaatattt gccaaaaact agttaatcaa agatatcccc cacccttgt gtgctgttct 660
ttactctaag gctggagcca tgtagacact ggggcatttt tgtaaagtga tagctcctgt 720
ccccagggtc cttactgtct acaccattat agattattca tacaacttga tgatttgcct 780
tgatgttttc tctcctttcc tcctatccct tctttctctt tgttttacac tctttgttgc 840
ggatgatgagt tccttccaga ggaaaaacaa gaaatccaga aaagctgcct cctggattgt 900
aattctgggc cccatctaag gccaggatca tcagacacct gaaaaataat cacgttcacc 960
ctgagagcaa gggaagagag acttttctca ggataaaagg aaatccagac aaccaacact 1020
gcagagaaca gagcctgatc ccctaagcaa cctgccgaga accagaggga ccaaatgagg 1080
aaccttactg cagtttatca tttgaaatgc tttgtaggaa gagggagggtg agcctggcat 1140
ttgctaggaa ccagagtga accggcaaag tggccagcaa cagagtcctg atccaaatgg 1200
agaaagggaa ccaggcgtac ctcaacctgg agtgggaaac ttgataggag tttgaatcag 1260
cttgggtact gacaaatatt gcttcaggaa attctcttca gaccgaatt gtgattcagg 1320
caggagctgt gccatcttc atagagtgtc tcagctcaga gtttgaagat gtccaggaac 1380
aggcagtctg ggctcttggc aacattgctg gagatagtag catgtgcagg gactatgtct 1440
tagactgcaa tatccttccc cctcttttgc agttattttc aaagcaaaac cgcctgacca 1500
tgaccggaa tgcagtatgg gctttgtcta atctctgtag agggaaaagt ccacctcag 1560
aatttgcaaa ggtttctcca tgtctgaatg tgctttcctg gttgctgttt gtcagtgaca 1620
ctgatgtact ggctgatgcc tgctgggccc tctcatatct atcagatgga cccaatgata 1680
aaattcaagc ggtcatcgat gcgggagtat gtaggagact tgtggaactg ctgatgcata 1740
atgattataa agtggtttct cctgctttgc gagctgtggg aaacattgtc acaggggatg 1800
atattcagac acaggtaatt ctgaattgct cagctctgca gagtttattg catttgctga 1860
gtagcccaaa ggaatctatc aaaaaggaag catgttggac gatatctaatt attacagctg 1920
gaaatagggc acagatccag actgtgatag atgccaacat tttcccagcc ctcatagta 1980
ttttacaaac tgctgaattt cggacaagaa aagaagcagc ttgggccatc acaaatgcaa 2040

cttctggagg atcagctgaa cagatcaagt acctagtaga actgggttgt atcaagccgc 2100
tctgtgatct cctcacggtc atggactcta agattgtaca ggttgcccta aatggcttgg 2160
aaaatatcct gaggccttga gaacaggaag ccaaaaggaa tggcactggc attaaccctt 2220
actgtgcttt gattgaagaa gcttatggtc tggataaaat tgagttctta cagagtcatg 2280
aaaaccagga gatctaccaa aaggcctttg atcttattga gcattacttc gggaccgaag 2340
atgaagacag cagcattgca cccaggttg accttaacca gcagcagtac atcttccaac 2400
agtgtgaggc tcctatggaa ggtttccagc tttgaagcaa tactctgctt tcacgttcct 2460
gtgtcagacc aggctacca gtcgagtctt cttgtggagc ccacagtcct catggagcta 2520
acttctcaaa tgttttccat aatactgttt gcgctcattt gcttgccttg cgcacctgct 2580
ctcttacaca catctggaaa acctccggct ctctgtggtg gaataccctt ctaataaaag 2640
ggtaaccaga acggccact ctcttttacg gaaaaatccc taggccttgg agatccgcac 2700
ttacattaga gttatgggaa tatacacata ttaatgtggc tcccttttct ttgtggggga 2760
ataaaagagg actcctctc attcccttta acatggggga aaaaactgac attaaaagat 2820
gagactaaat ctttatcttg aattttacac aactacttac gacaaggag atgtttagac 2880
ctgttgtgta tacttcagag tacttttcat gagttcttcc acagtgaacc cttggattac 2940
ctggtggctt tttctagcca gatttgcatt aatccttact gagattggat ggttttcttt 3000
cctctattgg cgccattctt cagatattaa agttaacca tccactccct caccttcagc 3060
cttcagtga tgtgctttct agttgtcagg aatgctgaag aattaacact ttgactccta 3120
aatgtgatac tggttttag attcccttag agcagaaagg agaggggcac atattaattt 3180
gtatcgcttt tgcttctctt tggctttttg tgtcttagaa tttggaagtg gttcatttct 3240
gttgctggta tgaggatttc gaatacttag taatcgaaaa ccatactctg taatttaata 3300
aaaaaaacta aggacg 3316

<210> 1542

<211> 3507

<212> DNA

<213> Homo sapiens

<400> 1542

atgacaatca agtgggaagag ggtcttgcaa ttgcacttgt ccctgagggg ggcccttgtc 60
cttgccacct tggttcttgc tcaggctgct ggggctgagg cctgaggtct gggatgggga 120
gagagccttc agtatgtggg ccgccctcct gtcagaacag tgtttgtcgt ctctgtctat 180
cttacgtgag tagctctcaa tcctgtgat aatgtgggta tctttgtctt ctacagttag 240
ctgtgagttg atggcttcaa agcccagttc tccaatagct tcctgtctca gggagggagc 300
tccatgcttg agagggggcca ttgctgcctg cctgggtgggg ctaaatacagg cctggctggg 360
tcatcggcac cgggtgcatag gcagggcagg ctccgcacag tgtgggctcc tcagcaccag 420
agggtggcac cgtggcatcc acctgggcca cactgtatct gggggaagaa actccatggc 480
aatgtttcat tatacctggc cctgctggct catccagggtg gtcactatga cacatcctta 540
ccacactgca cattgcctgc tttagccacc aacatgccac caaccaccac agatcacctt 600
ggtcagccag caacctccac ctccccacc agtcaatgtc tatcagtcaa aattcctaga 660
actaaataag tataaaagaa acttaactac ttcaacttaa aaataatttg cttctgtctg 720
cctatgaaaa tgttaatat tgtgaaatct gagtgaaggg tatatggcaa ttcttcaact 780
attctttcaa ctgctctgta agcctgaaat tatgttaaaa taaaaattca aaaacaaagg 840
ccaaaaacct tgtaccctta agggttactt gagttagtgg ttcacagcaa cagatactca 900
aatctgggtt gtgttacttc tgaaaattaa gcttcatatc tttttcttca tggctctttc 960
tggtgtaaag tacaacttga atctcatgtt agaaggtcta tccaacaaa gccagacca 1020
ctggactcta gaggttcac gcatgtggca gactcctgaa tattgtcagg ctttatctcc 1080
cattttctgg cattgcaggt actttactaa ggcatttagg tgctagctct ttggggctct 1140
ccaggtccaa ttagcatgat aaagatatgt aatggatcag cttgggcttc tgggtccctc 1200
cagattgcat tctgactaag tgcaggcaag ccgacatagc ccggaggcag gacagtaaaa 1260
gtatactgct gtccctgcca caacagggca gaagaggatt aaggtggggg tgggcaggat 1320
aaagcatttg ccaggtcaat agtggcccag gtgccaggga ctgtgtggat ttgctccagt 1380
aaaaataaccg tctctgcaat tctggttgtg attcacctca cactggatt agtccgtgat 1440
gatctgtggt cattttctat gacctacttg atttgtacac tgatcaaaca agtgagttaa 1500
ttgtggattt ggtaggaatc actaccttg atctttcaag tctttggtgg tggcattaag 1560
ctcatgtgag gagcagaaaa aaagtttgtg agaaggctgg cacactgtag gagcttgata 1620
aatgatagct atcatcattg ttgttgtcat gtgttattgt cttagccaag tcagggtcaa 1680

aatttacatt atcttttttc tttttgaaat atcatatttc attgctccta agaagcatac 1740
tgttgtgtac tttaacatct ctgaagtcag gatatgataa tagttgatgg tatgttgtga 1800
ttgctgttgt ttcgattaaa attgtgttca tttgtagagg atttttcttt gcttctgcct 1860
gtcacttggg gcacaggctg agttaccaat gagagtaaag cttcaggaca cctcatttgc 1920
atggcccttc caaggtcctg aaagggttcc acctcacagc ttcattgggat caaattacat 1980
attttttttc tgagacagtc tcaatctgct gcccagggtg gagtgcagtg ttgctatctc 2040
agctcactgc aaactctgcc tcccaagttg aagtgattcc catgcttcag actccagagt 2100
agctgaggca cgtgccacca caccagcta attttctttg tatttttagt agagagatgc 2160
agttttgcc tgttggccag gatggtctca aattcctggc ctcaagtat ctgcctgtct 2220
cagcctccca aagcgctggg atcacagatg tgaaccacca cactcagcct catcataggt 2280
ttttataaaa tttgcaagag taagatat ttgtatttctt ttttaaaga gggcatcaaa 2340
ttatataagc tttgggttct acccttgcca aggaactcat aataatgtga aactacaggt 2400
ggtcctaac tttacgatgt ttcagcttat gattttccaa ctttgtgata gtgtgaaaac 2460
aatatgcatt cagtgtgctt ctcaacttac aactggataa agttgactta tgatatagtc 2520
accttatgat ggtttatcag gacataacat catcataagt tgagggtgat ttgtacatta 2580
aattctctga ggtttttttg atggcacaag tagtaccaga aaactgcatg agaaccaact 2640
tttgattcaa attatacggg cagattttac ttcctccatc catggcaaaa ttgaaacatg 2700
caacttctct tgctgtccta ctatgcatgt ccttttcttt ctcttttttc tgtatatattc 2760
tcatggaccc cctccacaga ggccttttagt gtctcagctt tatctgggggt ctaatagact 2820
tctatctgga gtattttcat ttttagtggc acatccagta atggtatctc tattaatcaa 2880
tgatgcctta ggttccatga acatagtaca taatagggtg ctcaagatgg gtccccctga 2940
gaccagcagg ctggcctgtg gagtttggac aacctgccc cctagaggtc tgtcttgtaa 3000
cctgagaaga ttagccccct aacaattact gacagggagt ttcttaaaaa tcaggaagga 3060
tgctcacttt tatttattat ttatttttta ttattattat ttttgaggca gagtcttgct 3120
ctgttcccca ggctggagtg cagtgggtgca gtctcagctc actgcaacct ccacctccag 3180
ggttcaagca attctcctgc ctcagcctcc tgtgtagctg ggatgacagg cgcctgccac 3240
tacacctggc taatttttag attttaagta gagacgggggt tttaccatgt tggccaggct 3300
gttctcgaac tcctgacctt gtgateccacc agtctcgacc tcccaaagtg ctgggattac 3360
aggcgtgagc caccgtgtct ggccttattt atatttttaa aaacaggatc tcgatctgtc 3420

accaggctg gagtgaatg gcatgatcat ggctccctac agtccccact tcctgggctc 3480
aagcaatctc tcccacctca accttcc 3507

<210> 1543

<211> 2899

<212> DNA

<213> Homo sapiens

<400> 1543

aaaatgcctc atgctggcgg gaagttttat ggatgtaaga aatgtgggaa agcctttatt 60
agtttctgtg cctttcgata ccatcaaagg actcacacta aagagaaacc ctatgcgtgt 120
aaacaatgtg ggaaagccta tatttcttac acttcttttc aatatcatca gttgaatcac 180
actggagcga aacgctatga gtgtaagcag tgtggcaaag gcttcgattt gccaattcc 240
attcgatatc atgaaatgac tcacactggg gagaaacccc atgaatgtaa gcaatgtggg 300
aaaactttca gatgtgcctc aagcctccga atacatggaa ggactcacac tggggagaaa 360
ccctatgaat gtaaacagtg tggtaaagtc tctcgttatt ggagcggcct tcaggtacat 420
gaagtaactc atattggaaa aaagctttat gaatgtaagg aatgtgggaa atcatactat 480
agttctgggt cctttctaaa tcataaaagg atccacacca gggagaagtc ttatgaatgc 540
aaggaatgtg ggaaagcatt tggtaatccc atatcctttc aaaaacatga agggagtcac 600
agaaaaatgga agccttatga atgtaaggaa tgtgggaagg tattcagttt ttccagttcc 660
cttcggagac atgaaaggac acacactgaa aaactctgtg aatgtaaaca gcatgggaaa 720
ggattttttc atagaagctg tcctagacac atgaagatag acactggaga gatacttcat 780
aaacgtaaga tacgtggaaa agtctttcat tctcctagtt catttcaaac atgtgaaaga 840
tctcacacta gagaaaaacg ctataaatgc aagcaatgtg gaaaaccctt catttatttc 900
aatgcctttc aacgtcatca aaggagccac actggagaga acccctatga gtgtaagcaa 960
tgtgggaaaag cctgtatttc ttccactgct tttcagtgtc gtgaattgag tcacactgga 1020
gcaaaacgct ataagtgtaa gcagtgtggc aaaggcttca atttgcccag ttccattcga 1080
tatcatgaaa tgactcacac tggagagaaa ccctatgaat gtaagcaatg tgggagagct 1140

ttcagatctg cctcacacct acgaacacat gaaaggactc acattgggga gaaaccctat 1200
gaatgtaaac agtgtggtaa agtctatcgt tactggagtg gccttcgaat acatggacta 1260
actcatattg gaaaaaagcc ttatgaattt aatgaccgtg ggaaatcatt ctatagttcc 1320
aatttctttc taaatcataa aagggtccac actagagtga agacatatga atgcaaggaa 1380
tgtgggaaag catttgataa tcctacatcc tttcaaaaac atgaaggagag tcacagaaaa 1440
gggaagtctt atgaatgtaa ggaatgtggg aaggtattca gtttttcccg ttcctttcgt 1500
agatatgaaa gggcacacac tggcgaaaag ccctgtgaat aaacaatgtg ggaaaggatt 1560
tttcatatct tctgtggagc tttgaatgca tgaaaagaca gactacagag aaatgctaaa 1620
tgtaaggcgt gtataaaagc atttagtaat ttctcttcct tgcttataca tggaaggatg 1680
cacactggag agaagccata tgaatgtaa aattgtggga aagccttcac atctgccaa 1740
agccttcaaa atcatggaag gacacacacc ggagagaaac catgtgaatg caagcaatgt 1800
ggcaaagctt tcatttgttc cagtctctgt cagagacatg aagagacaca ttctgttaat 1860
atgcattcag ttatcctaatt tcctttgaaa cacagaaaaa gagtagggaa aggacctctg 1920
agataactgt ttcctgagtt gagaagagct acttgtgaat ggacaattaa atctagatgt 1980
atttagatct gatacaattc atctgtagcc aacctttttt taaatttttt tatttttttag 2040
atggagtctt gctctgtcgc ccagactgga gtgcagtggc acgatcttgg ctactgcaa 2100
cctccgcctc ctgggtttta gcaattctcc tgcctcagcc tcccaagtag ctgggattac 2160
aggtaaccgc catcacgcct ggctaatttt agagatggag tttcaccatg ttggccaggc 2220
tggtctcaaa ctctgacct caagtgatcc acccacctcg gcctcccaa gtgctgggat 2280
tacaggcgtg agccactgcg ccctgccacc tatagccaat cttaatgaga tttcataggc 2340
acagacaagg aaggttatca gtcacatatt agaggcacca cacagggaga gcagtgtgtg 2400
gccacatgct tcagcccatt ttttctgatt ctcttgcttg caaattaaga gtattctcca 2460
aatcacttga ctttctttt ctgagagtta tagttctcca gagatgtcac cagatgattc 2520
acattaaagg tacatttcca gttgactttt ttatttcaga tattagtaaa tgattaccag 2580
agaactaatt caaactgtca tggttggaaa tactctgatg ctcaactccc taatctatag 2640
agtgagttaa ggtctctact cttttgcaag cattgtttcta gtggcagtga ccctgttcat 2700
gattcagcct gacatttact atgctgccct gaaaaccaac tagatgggag cttgtttctc 2760
tctgcattgt gtagtgagtg gtgtcaccca ggactttcat gtgagaaaaa gcaccttgct 2820
tttaatctgg gaattttgag tgttttttgt aatgcctcag tttattctta tttatggttg 2880

attatatgtg atttagaac

2899

<210> 1544

<211> 3225

<212> DNA

<213> Homo sapiens

<400> 1544

accaagcttt catgccctcc ttgggcacac catcttcaag gaacctccac atattcagct 60
atctggaagc tctctgtacc ctctcctctt gggccttttg tggggacatc actggatagg 120
tgtgactgaa gtatggacaa ccatgtagca atgtgattgg acagaaactg tgacctacca 180
caaatagact gagtgggaaa accccacagg gcctgtgtgt tcagattccc cagcttctct 240
gtgcagcgtt tcttccttca ggtgtgggac aggactcctt ctgaaatgag ggtctatgac 300
ctacagtcag ataaggtagg tcagagaatt tctttccttc tttctttttc ataagttcaa 360
cttttatatt agattcaggg ggtatatgta taggtttgtt atatggatgt atcgtgcgat 420
gctgagggtt ggggtatgat tgatcctgtc actcaagtag taagcacagt acccctggaa 480
ttagttttca acccttgctt cccttctctc tctgtcagtc tccagtatct attgttccca 540
tctttatatc catgagtacc cagtgttttag ctcccacttg caagtgagaa catgcagtgt 600
ttggtttttc gttcctacat taatttgctt agaataatgg cctccagcta catccatgtt 660
tctgcaaagg acatgatatt attctttata tgactgcata gtactctgtg gtataaatgt 720
accatgtttt ctttatccat ttcaccattg atgggcatct aggttggttc catgactttg 780
ctattgtgaa tagtgctgtg atgaacatac gagagcatgt gtctttttgg tagaatggtt 840
tattctcttt tggatatata cccagtaatg ggattgctgg gttgaatggc agttctgttt 900
taagttcttt gggaaatctg ccaactgctt ctacagtac tgaactaatt tacattacca 960
ccaacaatgt ataagtgttc ctttttcttc acaacctctc cagcatctgt tgttttttgg 1020
ctttttaata atagccattc tgactaatgt gagatgggat ctcattatgg ttttgattta 1080
catttctctg atgattaatg atgttaaact ttttttgtat ttctgttggc tgcttgatg 1140
tcttcttttg agaagtacct gttcatatct ttgcccact ttttaataga gttatttgtt 1200

ttttctttgt caaattgttt aagttcctta tggattctgg atattagacc tttgttagat 1260
gcatagtttg ggaatatatt ctccattct gtaggttgtc tgtttactct gttgataatt 1320
tctttttctg tgcagaaatg gtttagtttg attaggtccc acttgtcaat ttgtgttttt 1380
gttgcaactg cttttgagga tgtgggcata tattctttcc caaggctgat ggaaccataa 1440
aagagcctga atatccaaaa caatcctgag caaaaagaac aaagctggag gcaacacgtt 1500
acccaacttc gggctaaact gtaaggctac agtaacaaaa acatcaaggt gccggtataa 1560
aagctgagaa tttctttatg gtcagctcca agacagaaag gcagggggag attagggat 1620
attttttagt tttatgaact gcctagggga gaaataacag tggatgtggg agttatgagc 1680
caggaattgt agatgaaaac ctatatacat aatttcaaca gtcatgcttg gaactcatcc 1740
tctctccctc catgtcagct cctcctcctg ttcattccagc ccaatgcacg gccaccacc 1800
cacctggctg cctgggtggg cgggcaccat gggtcatgc tggctacca gcctccttc 1860
tactcagtt cccagtcttg tcagtcttgc ctcttttagca tctcacaagc ctgcctacct 1920
ttatcacact gacattgtgg gccctcttc tgatcataat agcaactttt cctgctttgc 1980
tgttccactg ttgccctctt accaccttct ccagggtggt ttgagtaagc atcttaaaat 2040
accaatctgg tcattgcaca aggctgccg atgtcctaag cataaagcct aaatgcctta 2100
ccatggttca tggcattctt ccatgtggcc tctgcatgta cttgattatc acccatcact 2160
accccatcat caccctattg tagctgatac ttgttccctt atgcttcca atgccattgc 2220
attttttttt ttctggaaag aaactaattt agaagggggac atggttaagg agtatcatcc 2280
agagaaatat tcgattgaat catgtgaaat tgctgatatt tcaccatttt tgacctagaa 2340
aaatgacaat ttcatatagt taaccaata tttagggtt tgaagtcac ttcagaaggg 2400
tcagatgctg tggctggtct ccttgccctt gacacacagg catagtttgc tccccaccc 2460
ctctgcatgt gccctggtgg gcctctccca gccaccctt caccctcacc aggcttccc 2520
attcagcctt caaggtttag atttctctc tgtgcaacct tccctgacta accaagactg 2580
agtaatgtgc ttgcaatgat ttattctcac ttccaagtg ctccttgaca ggtattataa 2640
tgtagcagga caagccgcag acaaaactcc tcagacgctg agttaagaa ggaaaagctt 2700
tattcggcta ggagcttcgg caagactcac gtctccaaca actgagctcc ccgagtgagc 2760
aattcctgtc ccttttaagg gtcacaact ttaaggggggt ctgcgtgaga gggatcatgat 2820
ccatgtgagc aagcagaggg tacgtgactg ggggctgcat gcactggtaa ttagaatgga 2880
acagaacagg acagggtttt tcacagtgt tttctataca atgtctgaaa tctatagata 2940

```

acataaccga ttaggtcagg ggtcgatctt taactgccag gccaggggtg tggcaccggg 3000
ctgtctgctt gtggatttca tttctgcctt ttagttttta cttcttcttt ctttggtggc 3060
agaaaattggg cataagacaa catgagaggt ggtctcctcc ctttaataaga ttaagtctgc 3120
cttgttcagg actgtattct cagtgatttg ccagtgtgg atggtacagg ggttcccaat 3180
aaacatgtat tgaatgaatg attgaataaa tatgtgaatt aatgc 3225

```

<210> 1545

<211> 3071

<212> DNA

<213> Homo sapiens

<400> 1545

```

gactgcctgg cccacagagc cctcgcttcc cctgcacttc agccaccac tggcatcacc 60
acgatgggct gtgtagcaa acattgtgca ggcctgtgc agtctcgagc cccgacatcg 120
aacttcctga gtccagattg gcgaccctcc cgttgtctca ctcttactg gcaactgtct 180
tgtttttggg tctcaagaca ggatgttgct tcttttactg tggtcctgtc agccctcttc 240
tgtcttact tcttttctca cctccttact ctccacagtg catggggcat ccctcctcac 300
tcccttcagt catactcatt agaccaaacc caactggaat cagtgcagcc atccaccttc 360
tccccccacc ttgaccact gtgtgctggg ggagacaatc acacctccag agtttgctgc 420
ttggagctca caaggctact gctatttcag acacagccga tgatctcacc tctgcatta 480
gagtgaggat gagccctctg agaggaactc ctcaacttct aggtccccac ctgagattcc 540
attctgtcgc actagtgtgt taaatccagt tcttactggc ttgcaagagt ggattgttaa 600
atgttcagga attttatgag ccagttgtta aacaccgtta ttactaaaaa ttaaatgaag 660
actgggtgca gtggctcatg cctctaattc caacactttg gagggtgag gtgggaggat 720
tgcttgaggc cagaagttct agaccagcct gggcaacata gcgagacctc atctctacta 780
aaaataaaaa gtagccagggt gtagtggcac acacctgtag tcccagctac tcaggaggct 840
gaggcaaaag gattgcttga tcccgggggt ttgaggctgc agtgagccat gatcacacac 900
gcccctgcac tccaccctgg gtgacagagt gagattctat ctcaaaagca agacaaaaca 960

```

caaatgatat aaacttgcag ttacatatat tatattaaaa atagtggtaa tacttaaaac 1020
attctagttc ttaaatttta ctcttgtcta gctttcaggg ttatttatgt ctatcacagg 1080
gcaaccaact gtccctgttt ggtcaggact gagggatgtc ctcagtgcta aaaagtgatg 1140
gagaaaatgt tattagtgca gattaaactt aaaagtgtgt ggccaggcac ggtggctcac 1200
acctgtaatc ccagcacttt gggaggccaa ggtggacaga tcacgaggtc aggagttcaa 1260
gaccagcctg gccaatatgg tgaaaccccg tctctactca aaatacaaaa attagccagg 1320
tgtggtggtg cacgcctata gtcccagcta cttgggaggc tgaggcagaa gcatcccttg 1380
aaccaggag gtggagcttg cagtgagccg agattgcgcc actgcactcc agcctgggct 1440
acagagcaag actccacctc aaaaaaaaaa aaaaaaaaaa aaagtgttag ctgggcatgg 1500
tggtgcacac ctgtagtccc agctactcag gaggctgagg cgggaggatt gcttgagccc 1560
aggaggcgga ggctgcagtg agccaagatg acaccaccac actccagcct gggcaacaga 1620
gtgagaccct gtctcaaat aaataaataa aaataaaagt gtgctgcggg gccgggcaca 1680
gtggctcatg cctgtaaacc caccactttg ggaggaccac ttgagcccag gagttcagga 1740
tcagcctggg caacataggg agataatcat ctttcaaaaa aaatcaaaaa attagctggg 1800
cgtggtggca tgcacatgtg gccccagcta tttgagaggc tgaggatctc ttgagcccag 1860
gaattcaagg ctgcagtgag ctgtgatcac gccactgtac tccagcctga gtaacagagt 1920
gactggacgg ctttccaaga ttgagaccta cccttttaac cattgtgtgt gtgtgtgtgt 1980
gtgtgtagtg aattagataa tgcatataaa gagcttagta tagtgcttga aagtaagggc 2040
gtattagctg ttgttctatt tatggtcttt agctggtgac cttcagatct ctccacaagc 2100
aggaggcctg tatgtgtatc caaccacctg cttatatagc atgtggcctt cgctgtccca 2160
caggcagctc cagctcagct tggaccaaac tgaactcttc tcctcagctt ccatectcaa 2220
acctgtcct tctctcacgt gtcttattat ggtgaatcct ctcagctgcc cgggtcccc 2280
aacctctccc atccagcagg tcaccaggc ctgctcattc tcctgcctcg tcagctcttt 2340
cacgtgcca tttctctcca tttcccaccg ccgctgcctt cattctgacc atcggtatct 2400
gtctccagga ctgctacagc agacttctgg ctgaggcctg tgccctgagg attgccacc 2460
ccaattcatt gcctatactg tagcgagagg gatctgtcag taatacgaac ctgggcctgt 2520
cgtgatccag ttggaagcct tagtggcttc caggatgctc cttatcttcc ttggagtct 2580
cgtgctgcgg cttcatctcc tctttccctg ggccctgccc ccaccctcta gattccttcc 2640
catacccat ctttagctca gagcctttgc ctgtgctgct tgttctgcat agaatacct 2700

tccctcccct acctcaccca accctcctgt cccctcacc tagcagctcc catctacact 2760
 cagccaaggt gattttagaa tctaggaagc aggccaggca cggtaggctta tgcctgtaat 2820
 cccaccactt tgggaggctg aggcgggtgg atcacctgca atcaggagt t caagaccagc 2880
 ctgaccaaca tggatgaagc ctgtctctac taaaaataca aaattaacca gacgtggtgg 2940
 cgcgcctgta atcccagcta ctcagaaggc tgaggcagga gaatcgcttg aaccgggag 3000
 gcagagggtg ccgtgagctg agatcacacc attgcactcc agcctgggcg acagagttag 3060
 actctgtctc c 3071

<210> 1546

<211> 3057

<212> DNA

<213> Homo sapiens

<400> 1546

agggcccagc tgtacctgct ccatcccaga agggcccagc cgtacctgct ccatcccaga 60
 agggcccagc catactgct ccatcccaga aggcctcagc tgcgtcagct tctccccgaa 120
 aggcctcagc cgtacctgcc ccaccccaga agaccccacc cccatctcag aaggcccat 180
 ctgtacctac cattccccag aaggctgtgt cccccactgc tccaaagaag aaatctctac 240
 tcctccctgc cccatcccag aaggctctgc caacctcacc tacccaatac cagatggcgc 300
 tgagcccgcc tgcctcacgg gggaagctcc ctggcgattt tgacgtgttg ccaacaggaa 360
 ttctggaag agccgtgctg gagagaagcc agtctggagg gaaaccggag ccggtggtga 420
 cggtagcgac ccaggagaca gacgtggtgg agatgacgac tcaggccaag tccccggagt 480
 cgcccttcac cgtgaccaag aaggagtcca aggacatcct gattagccaa accgaggagg 540
 tgacctgga ggccttcagg ggccagggga agttggagga ctgggcccac tgggcaaagc 600
 ttgaagagag gtccccggac ctgcctggcg tgagatccaa ggagttggag cagcggaaga 660
 gatgggtcaa ggccaaggaa ctggccgtcg agggcccctc ccaggagcac agcaggccct 720
 tctctgtgga agcgtcacc ctcaccaagc tcatgatcac ggccaactcc aaagagcagc 780
 gctcgaaatc cgctttggtc tcaattccct cctggctctt ggcgactccg caggcgtcgg 840

ccacgtcaat gatggcttca gtgccctccc gccccggcca gctgtcctta ctggaggggga 900
agccagtggg ggtcagagag cagccagagt cgcacacctg ggtgaaggag ggcaagcggc 960
catggggcga gatgaaggag ccacctggg accccaaggg gccaccaag gtgccctttc 1020
gctccaagcc cacctctgcc agtctgaaga gggaaggaat ctcccaggcg cctatcccc 1080
tgaccgcctc accgtgggag gacttacggc catcgcccct ctcggagacc ctcatctcaa 1140
agatggaggc cacagccagg gcgtcccagc agcccaagag ggtgtcgcag gagcccatga 1200
ggatgccagc ccagcacccc ctggccactg tggggctcgtc ttcagaaatt cttttgccca 1260
tgctcttaga acttgaaact gtgaggaaca cggccaccaa ggcagaggag atacaggagg 1320
aatcggggcg cttgaacctt ctgccagcc tgcagcactc ccagcactcc gagtggccgg 1380
atgcgggggc ttaacctcag ttggaaactg tccagaggag cccagcgctg ccaggccccg 1440
agggttctgt gcgcaccgac tgtaggaagc ggaatgttga aagccgtttg gggggatttg 1500
ccccctctgg tagataccag aactatggat atgcctttat atattggggg gcgggggggg 1560
gcggggggcga gcccgtggag ccgcccact tgcagagat taaagcttga gcctgagact 1620
cagcgagtcg cacctcgggt cctgtgtgca cgcgcaggcc cccgaggggg cgtcggggga 1680
gcaaggggtg ggggtggggc gccctacca gccccgcggt gcacgacggc tccattggc 1740
tggggctcgg gcgtcctagc caatccggcc gcggggtcgt tttctcctga cccgggtggg 1800
accgcacccc gcggactcag aagcgagcgg caccgccgga ccatcccaca gcagatccag 1860
tggccgcca cgtcaggctg gagttgcctc cttcgtggat gttggatgtg gaagcccagg 1920
agcccccaa ggggaaatgg tcgacgcgc cttcgaccc gcgcttccc agccagaacc 1980
agatccgtaa ctgctaccag aacttcttg gtgagacctg ctcagccagg ttatgggagg 2040
agcagggtgt gacaaggac ggcagggagg ggcactcca ccctaagtcc cgcggagacc 2100
gttaggggtg gaggccggc ggggccgggt tgggtggggc ggggcctggt cgagaaaagg 2160
cggggctgag cctggagggg cggggcgagg ttggtagggg cgaggcctga tctggaaggt 2220
gcggggccga gtcgtgaagg tgcggggcga ggtaggtagg agcagggtct gggtaggagg 2280
agcagtgtga gggaggtagg ggtcggggcc tggctgggag gggcgggacg gaggcctcca 2340
ggggagaggg aggcgggacg aagcagcga gaactgggag ggcccagca gtggaggggc 2400
gggtcctgtc ctggaatggg cgtggcttgc cgcgtgatcc ccgcccca cagactacca 2460
ccgctgcctc aagaccagga cccgcccgga gaagagcacg cagccctgcg agtactat 2520
ccgctgttac cactcgtgt gcccatcag ctgggtggag agctggaacg agcagatcaa 2580

gaacgggatt ttcgccggca aaatctgact gccccagcgc ggcttcctct gaagatgcag 2640
tgatcctgca tctttttgtc tcgcggagcc ccgggtctcg gttatccacc cctacctccc 2700
agtgtctaag ccacgaataa tgcaggtaga tgcctcgcgt tgacagctac gagccagccc 2760
agggtcccca gttctcaaca ctgtcccacc cagatggctc caaggccaag gagtgccgct 2820
tgacaaagcc ctagggttcc agcctgggtc tgctgaggga gccgtgagac cagtcagcct 2880
gaggtgctgg ttttccaac gggtactccc tgagctatca gccttcaga ggggctccta 2940
ggagggggaa gccccatcct ctgactgaag cggctctatg aggccctgtt caaccccagg 3000
gttcaaagga cacaccctag atgaacgctc tgaaccccct ataaaaaatg tgcattgt 3057

<210> 1547

<211> 3154

<212> DNA

<213> Homo sapiens

<400> 1547

tttgcaggc catggggaag ttgtccacaa ctattgcagg gttgggcaca gatgggggcc 60
agggaatatc tgccccagca gaggctcctt ccccatgcga ggatgaccct ccagtcatat 120
cccaggcagg gaaccggggc tgggtgggtgg aaagagccca ggctctggac gaggttgaaa 180
ctctgcaagt tgtgattgtc ctttttgtga aatgaggagc attgtttccg ccctgtccac 240
ctcacacagc ggggtgtgagg atggaagaag agagcacagc tggaggctct gtagctgggg 300
agctgtcctt ggctgtggca ctgcttcaca cagagcagtc ccagctggcc actggcacca 360
gaaaccacag tatcaaagag aactgtcac acctgagctg tcctggagga gacttcaggc 420
aagatctact cctttggcca gtagttgtct caaggtgcca ctcttgattt ttacatcat 480
atcaciaaagc tcccttgctt ctgacgggga ggggactcct cgttccttaa tcccagctcc 540
agtgcctctg cccaccctgt gtctcccgtt gcccctcctt ggaaggcccc gccgcccacc 600
ttggagttca gatactgtg cagtagcgcc tgcagctctg tgttctgtg ctccagagaa 660
ctgttttcca gcagcagctt ggccctcttg gtcaggacaa ggctttggac agaaaaatcg 720
gttagaggct cactgaatcc tccatcctct gccaaagtagg ggccagggtc ttggtggttg 780

tactttggct acaggtggag ggagactcca gaagctacac tcttcaccca gccgccaggt 840
gagccaggtt agcaggaaca gaacaggcag gccagggccc aagagccaac cgccccacat 900
gatccaccca cacaggagat gccaaaggga gcaaacgcgg ctgctcccaa caaccgttcc 960
tcacctgccc gccagcacc tcttgctcca tgacatgcac acttactggg acttctccaa 1020
ggctgtgtag agggcatccc agaggttctg cttggaggaa gggatcactg tggtcagggc 1080
ctgccagtac tccgagtcct tggagttgtc acgcacattc ttctgtacc tcagcggggc 1140
ccgcgagtcc ctgaaggcca agagcacagt gattgtcatg tccattgggt actaccagg 1200
ccccaggca gtgccagtca caggcctact gctttccac ctgtcacctt cccactcagc 1260
agtccaagtt tattagacgg tggcaggttc tcagaaagga cgcagtctta ttgtcaacgt 1320
tctgcctcg gtaccaccgg taccttctg agggcataat cagtgttca tccaccctc 1380
tctctcccaa tcagtttacc tcaactggctt tacagctcat cactgtgccc atctcttgca 1440
ccaacacatc caaaacagca cttgaattca gtcatgtcct ctccatcccc tcatgacagc 1500
cttaatctgg gggatcctca cctcccacct ggacaagcct cctgatgctt tccctgtatc 1560
cagcttcgcc ccttcctga cgccacaatg atctctctaa aacgcaaggc taatcatggc 1620
tcttcggctg cttcaaatcc ttttctggct cccaccacc aacgggtaaa gacaaagatc 1680
ttgggcacat tgggcaaggc tctccaagac ctggctagct cccaccac cagtgccacc 1740
tcccaggccc ttgacactcc agccagacct cctgtgatga ttcttgaaca gaccagacct 1800
tcccatgct gtcatttct gaaatgcct tacctccatt ttatctgcct gggaacacct 1860
agttccagtg ccatttctc caaaaccct ctgacatgcc aaatggaaac agccatttc 1920
tcctctgaac agtgggtgcac cttgaatgtg ctttgaccat tactctgatc acaaggcagt 1980
gccccacag tgcttacaca tggcagcctt cagtgcagt ctgctgaatg aatgatgagt 2040
gaaaaaagca cagatcacca ctatgccta ttgctttcct gactgtccag cgattggttg 2100
ccccagccc ccttcagata gccctgtcct tagtccccgc atcttgcca gcagactctt 2160
ctccactcac tggctctgcc tggctccca gccatccag ctcccctggg tctggtctca 2220
ggcaagcctt ccagccccgc agcccaccta ggcttcttca gacccatgac gaaggcctcc 2280
agaatcttga ggacatcatt ggggtggatg acccagggg aggggtgggg ctctctctct 2340
tctctctct ccccttcac caggctttct tcttttctc cctccatctc cgtctgctct 2400
gccagctcca attctgacct cgtgcttgtc tctccatgc tcgccttctc catgctcgcc 2460
tgactgcagg gcttgatctg gagaaagatg cacggacaac tgtgggctgg ggacacacga 2520

gcatgagcat ggagagagag gcaggaagaa gaaaaaccag aaaagtttac agaaagtgac 2580
 agcttgccca gggagacatt tacacaggga cagaaacagg agagagagtg ggaagaaggg 2640
 ggatgggatg gggagaggca ctaggaggct acgagaaaat ggaaagggtc tgtttctaaa 2700
 tccgggctcc taggtgctca cttactgac attcataaag cttacatgtt agaaatcttc 2760
 ttttgaatca taatacagat taaatTTTTg ctttaattgt taaatttaaa aggtcttcct 2820
 cctactccta ttttgagtt catgcaattg acctcccaca ggcaaacgaa tgctatcaag 2880
 tttcctatgg ttccttccaa ggaaatagta tgtctatata atgtttatat ataaatacat 2940
 gcgcatacct ttccatatat actcctcctt ctcgttttga catcaatgat actatactac 3000
 aaatagagtt ctgtagtttg cttttacact taccaataaa ccttaggtac cttttcatgt 3060
 gaatacataa agaactttgg ttttttccca cagttttata gtaccccatc gtgtagacat 3120
 accatatatt attaaataga ttcctcaaca atgg 3154

<210> 1548

<211> 3084

<212> DNA

<213> Homo sapiens

<400> 1548

gagtttcact ggtttaaaaa tacacagagg aagcgagtaa gagaaagggg aaggggaggt 60
 gggagaggca cctcaacttt gatgtccga gccttgagt gccactcgca agctggccaa 120
 gggcttcaca caatttgcca agatgacaga ggggaccaag aagaccagca aaaagttcaa 180
 gttcttcaag ttcaagggt ttgggagttt ctccaacct cctcggtcct tactctgag 240
 acgatcctca gcttccatca gtaggcagtc ccatttgag cctgacacct ttgaagccac 300
 gcaggatgac atggtgacgg tgcccaagag tccccagcc tatgcccgt ccagtgcacat 360
 gtacagccac atgggcacca tgcttccca caggagacgt agaagaggag agacctccca 420
 agcccaactt ggtaccgga ggtgtaccg accccccagg cttggaggca gccaaagagg 480
 tgatggtgaa ggccactggc cctctagagg acacccagc aatggaacc aacccttcag 540
 cagtggaggt agacccatc agaaagcctg aggtccccac aggagacgta gaagaggaga 600

gccagaggct ggcagcgact atgtgaagtt ctccaaggag aagtacatcc tggactcatc 660
gccagagaaa ctccacaagg aattggagga ggagctcaaa ctcagcagca cggatctccg 720
cagccatgcc tggtagcatg gccgcatccc ccgagaggtc tcggagacct tggtagaacg 780
caacggcgac ttctcatcc gggactcact caccagcctg ggcgactatg tgctcacgtg 840
ccgctggcgc aaccaggcct tgcatttcaa gatcaacaag gtggtggtga aggagggcga 900
gagctacaca cacatccagt acctgtttga gcaggagagc tttgaccacg tgccccccct 960
cgtgcgctat catgtgggca gccgcaaggc tgtgtcagag cagagtgggtg ccatcatcta 1020
ctgcccgtg aaccgcacct tcccactgcg ctacctcgag gccagctatg gcctgggaca 1080
ggggagtagc aagcctgcta gccccgtcag cccctcaggc cccaagggca gccacatgaa 1140
gcgggcgagc gtcacatga ccgatgggct cactgctgac aaggtcaccc gcagcgatgg 1200
ctgccccacc agtacgtcgc tgccccgccc tcgggactcc atccgcagct gtgccctcag 1260
catggaccag atcccagacc tgcactcacc catgtcgccc atctccgaga gccctagctc 1320
ccctgcctac agcactgtaa cccgtgtcca tgccgcccct gcagcccctt ctgccacagc 1380
attgcctgcc tcccctgtcg cccgccgttc cagttagccc cagctgtgtc ccggaagtgc 1440
cccaaagacc catggggagt cagacaaggg cccccacacc agcccctccc acacccttgg 1500
caaggcctcc ccgtcacat cactcagcag ctacagtga cccgactctg gccactactg 1560
ccagctccag cctcccgtgc gtggcagccg agagtgggca gcgactgaga cctccagcca 1620
gcaggccagg agctatgggg agaggctaaa ggaactgtca gaaaatgggg cccctgaagg 1680
ggactggggc aagacctta cagtcccat cgtggaagtc acttcttct tcaaccgggc 1740
caccttccag tcaactactga tccccaggga taaccggcca ctggaggtgg gccttctgcg 1800
caaggtcaag gagctgctgg cagaagtgga tgcccggacg ctggcccggc atgtcaccaa 1860
ggtggactgc ctggttgcta ggatactggg cgttaccaag gagatgcaga ccctaattggg 1920
agtccgctgg ggcatggaac tgctcacct ccccatggc cggcagctac gcctagacct 1980
gctggaaagg ttccacacca tgtccatcat gctggccgtg gacatcctgg gctgcaccgg 2040
ccctgcggag gagcgggcag cgctgctgca caagaccatt cagctggcgg ccgagctgcg 2100
ggggactatg ggcaacatgt tcagcttcgc ggcgggtcatg ggtgccctgg acatggctca 2160
gatttctcgg ctggagcaga catgggtgac cctgcggcag cgacacacag aggggtgcat 2220
cctgtacgag aagaagctca agccttttct caagagcctc aacgagggca aagaaggccc 2280
gccgctgagc aacaccacgt ttctcatgt gctgcccctc atcacctgc tggagtgtga 2340

ctcgccccca ccagagggcc ctgagccctg gggcagcacg gagcacggcg tggaggtggt 2400
 gctggctcac ctggaggccg cccgcacagt ggcacaccac ggaggcctgt accacaccaa 2460
 tgctgaagtc aagctgcagg ggttccaggc cggccggag ctctggagg tgttcagcac 2520
 ggagtccag atgcgccttc tctggggcag tcagggtgcc agcagcagcc agggccggcg 2580
 ctatgagaag ttcgacaagg tcctcactgc cctgtccac aagctggaac ctgctgtccg 2640
 ctccagcgag ctgtgacccc agggacattt cccctctgca gctgcggaca gcgtcagggg 2700
 cagaggggca cacaactttc cccagagcac cccaaggaca ctgtgatcaa cccgagaatg 2760
 ttctgggttc aactcaagca tctcccttgc acctccaggg tcctgcgtgg actctgggtt 2820
 ccatcccacc tgctacatgc tcaccaggtc tcattgagg aagaacagga acgccggttc 2880
 ccccaccagc ttttctgtct ccccttctctg ctgggggttcc ctgttttcga gccatgggag 2940
 gcaggctgct cagcctcct cactctctgt ctgtccctca ccaacaccaa ggcctccatc 3000
 tctactgtaa taagtctctg ttctgtaaat agatgtacag aagccatgtt atttctttca 3060
 tataataaac ttttatgact cttt 3084

<210> 1549

<211> 4211

<212> DNA

<213> Homo sapiens

<400> 1549

caggacaaac aaacaatgat agattcatac ccaagctgag aggggcgaac tgtaatgcc 60
 tccagcttcc ctcccagtac aacagggccc tctggctttg tgtgggtgct tgtggataga 120
 cactcactt cttccaagg tagctggttc cacttccagc caacagctca ggctgcctcc 180
 cagcccagct atcctgcagg ttccagcccc acagcacgtg tgtctctgtg tcctctagcc 240
 agtaggcttc tccccagaa tgctggattt cttatggaga ttttctgga taagatgagc 300
 aattgggctg accattggac catgtgtatt gatgcagtta ttgtatgcac ccagagatgg 360
 agaggcctgg tgcttccatt ctgatgtgct cttggagaaa gccattgagg aactgtggtc 420
 agcaggtgtt ccaggagttt cagcgccatg ggcttagtgg ggcttcatgg ccctgtgtat 480

gcattttccgt gtcctgcagc caggggtgtca gctcactgca ttcatccaat agctcctgag 540
ttcccactgc atgccaggta ctgtgtgtgt ggtgggtgggg ggtgactttt tatcaagcaa 600
agtcaaacca cacatgcccc ctgcctttta agagttcaag atctgtagca cagacagcca 660
tggggactag gagctccagc accgtgagct gtagtggatg tacacagagt gccccgtggg 720
caggcacagg tggcagctaa ttccagccgg gctggcttgg ggattcctta tgtgacaccc 780
actgtagacc cagcctgcag ctgtttcctt cagtggtcac ctccgcctga tgaaggaagg 840
caatgcgttc tcgtgtgaac ggctgtcttt tgctttctggg ccaggcctgc tcggactcca 900
tctcgctcat ggctgtggctt tgaaatgatg ctcatcaggc tccctgacct gctcagggat 960
aggccactgt gagagtcccg ctttgatttt caagcagctg agacaccaga ggctgtgtga 1020
atccccccag cctccccc cagaataagct atctgtccgg tgagaatagt cactcctcct 1080
gttctttgag gacaagacca gcaaaagact tgagtcacca ttcccaaaga aaaacaagga 1140
gaatgcaaat ttctcggctt aaaaatatat acaaagggat tgattctata taactctctg 1200
gagtaagaag agctgtgact tccattggct ggtgtgtgtt agagaaggat cgctgtgctg 1260
aagttgaaaa agagtgtatt cagctttgat atttggagaa agtgtcccaa ccatcatgta 1320
tttctgcctg gttttctttt agaatgcacc agctggagtc gacattaaag ggccccattt 1380
cccatttgct gcagaagatg ttttaattgga agtctctccc tgtccttttg taagcctcat 1440
ttctgcatat tagctttaca catgagttct ggggtgactg gtcaagacgg gagtctgtgt 1500
gtaattagac cagaccaagg aagaagcagg aagtttgctg gcggagaaca tgggagtctc 1560
tgtatgcctt ttaatcactc ttctgtcttg gtgtaatgtt cacatgttgt ctttcatcac 1620
agccatgggg acagagcgcc agttcatgct atctcctcac ggggcccttc ggtccatctc 1680
caccaccac ccagccctca ctgtcatctg tctgaccca ttggccttgc tcttcttttt 1740
ggaacatgat aacctccgc cagccgcccc agcacagtct caggacgttt gcatgtgtcg 1800
tggccccctg acactgtttc ctgagctcct ggctgtcttg ttcccttccc attacccttg 1860
tctctgctta agcatcagct cctcagaggt cctcctgacc agccattgc aagtaccctt 1920
tccccctcct ccttgcggtt ctgttgctcc ctccaccttg cagctctgca gcttcccgtg 1980
aatgtgattg ttacatgct gactatcatg tccccacct ggctgttcac cccttgacac 2040
cagcaccagc tttctttctg gctgcgttgc tgcctgtgcc tgcagtgggtg gctccgtaag 2100
catctgctga acaaacgcat ggatgaatga gccctttcag atccaggctg tgtggggctc 2160
aaaattaaag aaaacaacat acaaaatgac acatataaaa ttaggaatgg ggtttattta 2220

aattcttaaa agctgctaaa tttctgtacg tcacaaaact atacagtatt gaatatTTTA 2280
atagttacct gattgtattg tacgttttcc tacatTTTtc tcttgcatac atTTTgcctt 2340
ttcatatgac aaaaatgttt ggtattgctt ttaacaggac agaaagataa ttcctctagt 2400
gtggtcagat aaagctTTTT tttaaagtta tggatagttg gtggcatgca acgtgcagat 2460
ggtcacacag acagactcat gtggcattgg gtaaggTTTT gtcctataga cacaagaatt 2520
ttgatgtatt cTTTTcttt cTTTTttga gacagtcttg ctctgtcacc cagcctggag 2580
tgcagtggag caatatcagc tcaactgaac ctctacctcc agggttcaag tgattcttgt 2640
gcctcagcca cccaagtagc tgagtagctg ggattacagg tgtacacaca acaccagct 2700
aatTTTTgca tTTTtagtag tggcaggatt tcaccacgtt ggccaggctg gtctcaaaat 2760
cctggcctca agtgatccac ccacctcggc ctcccaaagt gctgggatta caggcatgag 2820
ccactgcacc cgtccttaga ttctTTTTca tcccataaaa aaaaaagatt catttacatt 2880
tgtgtatatg cattacaaat tattccttac aaggggagaac atttatTTtg actaggtaat 2940
aatgagaact gaatcctctc ctgataatag cgtgtctgat gataagaaga tTTTcttag 3000
actggcttct ggctccatac atttcaaacc ttgtccttt tcctcttcca ccagaccctc 3060
tgggtgctggg caccaatgag aagctcatct ggccccggga tcctggcagg aactgggag 3120
cactatttcc atgggcagca gggttgttcc tggagacatc actgaccag gacacctagc 3180
acaatggcac tcgatgtgaa agtggcttcg tacaaatctg ccactcaagc ctaaataagt 3240
gcattccaga agagccgcag cccctctaac agctcctgag gtgagggaaa ccctagggat 3300
gggaagtTgg agcagaaaga gatgggtggcc tgaagtcaac tgcagtgaaa atctctcccc 3360
atcagcaagt tttgcaaagc tatggccaca gggacacatg actggggccc ctctagtct 3420
tggaaggagc ccccatggaa atgagggcct cacagtgaat ccacctctga tctacttca 3480
cctgcagtca aatgagaaga gatttcaatc agctaaagac accctatccc ctctccccga 3540
cccctgcgac cccaggtgat ccgccccacc ttggcctccc taagtgtgg gattacaggc 3600
gtaagccacc acacctggcc ctgggggtca tatatcttaa atcaaggtat caacaggacc 3660
aagctcccca aaagctccag gaaaggatac ttcttggcct ctcttctggc ttctgggtggc 3720
tgcagcaatc cttggggttc cttggcttat ggatgcatca ctccgtactc tgcttccgtc 3780
ctcacttgac cttctcacct accttcttt acgtcatctt ccttctgaga tgctcttgt 3840
ccaaatTTTc ttctttgtaa aaggatgcc a gtcattggat cagagaccac cttaatccag 3900
gatgacttca tcttaactaa attacatctg caaagattct atttctaaat aaaccacat 3960

tctgaggttc tgggtgggca tgctatattgg caggacaaag tcaacacagg acactcattt 4020
 tcaggattga tcgcatgggt tgaggaagct gatgggtgaca tctcttctta aatctgtttt 4080
 caggaaaatc atactggttag ccttcaagtg gccatgggtg gagcattgac ccagggaaat 4140
 ccacatttcc caacacatgc tggatacctg aggactccag agctactatc tgctcataatc 4200
 tgctcaacat t 4211

<210> 1550

<211> 3174

<212> DNA

<213> Homo sapiens

<400> 1550

taatgctcca atcctcaaca tctagagtgt acttcatgga gggatccagc tctgcgttgt 60
 cccccgggtct ggatgacccc atgtgacctc tagagcatcc aatggccttt ggagctgcac 120
 cccacccctg tgctcccaa tgctgtgcca gctcctcact ccagggtcct gccagccct 180
 gccctgcgtg cccacccccc cccccccgc catgcctcat acctgcctgt ctccccaggc 240
 acgtgcgcta agctgcggct acccccgcaa gcaaccttcc aagtccttcg tggcaatggt 300
 gcttccgtgg ggaccgtgct catgttccgc tgcccctcca accaccagat ggtgggggtct 360
 gggctcctca cctgcacctg gaagggggagc atcgctgagt ggtcttcagg gtccccagtg 420
 tgcaaacgta aggaccctc tctcagctcg gtggctctgg ggggtggggga tggccccaaa 480
 tcctgtcatg gggatgggtg ggggtggggat ggcgtgggtg tctactcaca agcagctagg 540
 ccagtgtgta ggggtccatt cccaacactg acagcttgct tacatgtcag cagccggctg 600
 taggccctca gccctccag tgccatgttg gcagcacgga ccgaaaacct agtagcgggc 660
 ctccaatcct ggctctgcta ccgactcagc cctcaccgc caagaggctg tgcatgtctt 720
 ctgagccagc acgttttcat ctgttaagca ggaaactatg tttgttcatt cattcattca 780
 ttcatcatt cattcatgta cagggtgcaca tggccaactt taataggata tttcacgtat 840
 caggaatcct aagtactggc aacacggaag gtcataacgt gcctggccct ggagctccca 900
 gtctgtggga ggcaatgggt ttctgggtgt atttcttgta cagggtgtga aaggtccaca 960

agatagtcctc ttttcagtgc ccagcatgac atttccaaaa tgaagctatg tgtgttatgt 1020
tcatgtgttt tgtgcataaa aagggctcag agtcaaaaata gtttggcaga ttctgggttt 1080
ttatgctgca gaactttctca gagccttttaa aatgttcacg tgctaggtga ttctctgagg 1140
atgcgagtgt taggattaga ttctgaaagg cagaaaaccc aaaatactag gactaactat 1200
gatggagctc aaccttcagg gtgggcaggc agatctgtat aggctccatg gcagtgggag 1260
ccaggccccct tccttgcat ggctctgctg ggcatggcct cagcctcatg attcaagatg 1320
gcagcagcta tgttccaggc agctgttatg ggggtgagggg ccctggggcc aaagagcagg 1380
ccccagtgtc tcagggaagg ttcttagaag ttgccccaca tcactttcta tcttccactg 1440
gccagaacat ggtcctgtga ccactgggaa atgtagtctc cattttgggt ggccaggatc 1500
cactaggagg catgggaaat ggggcagggg acagggccat gttctctacg tgggggagta 1560
aacggtgttg ctcaaattag gattccgagg ccttttttag ccagaacatc cagtagaatc 1620
tgatggaact agtttttga gcatagctga ggccacacag cagatacata gtattttgga 1680
ccttcctgga aagcgacctg agaaggcatg taggccccct gaagaatgtt gccaccttgg 1740
ggcattgtga aaaccagac catgggctgg gcaaggcctc ctgagtactg tctattgtca 1800
cctcctctct gtggcccacc ctcccttcat tcctcaggca ggacttcagt gggtaggagc 1860
caaggaggcc atcactctga actccctgcc agaacttctg taattgacca ctctgcagac 1920
ttctacatac cctacaaaac cctgctcaaa taccctcttc agttagccac tctgcacact 1980
cctacacacc ctggaacc ctgcttaaat acccccttta aatagccact ctgcatactc 2040
ctacacaccc tgctcaaata acctgcttct tggggagagt cttctctgat agtcccacct 2100
ccaaatatag tttgcacaga tctttgcctc agccccagc acctcactgc ccccttacca 2160
tgcaaacagg gctcactgag ggctgcccag gccctgtcta caccaggcc ctaccgtac 2220
caccctgag accccaacc cctgggcca gcaaactctg gcaaactcg cccaggagct 2280
gggtggtgtc tcccacacag tggtgccacc acacgagacc tttggcttca aggtggccgt 2340
gatgcctcc attgtgagct gtgccatcat cctgctcatg tccatggcct tcctcacctg 2400
ctgcctctc aagtgcgtga agaagagcaa gcggcggcgc tccaacaggt cagcccagct 2460
gtggtcccag ctgaaagatg aggacttgga gacggtgcag gccgcatacc ttggcctcaa 2520
gcacttcaac aaaccgtga gcgggcccag ccaggcgac gacaaccaca gcttcaccac 2580
agaccatggt gagagcacca gcaagctggc cagtgtgacc cgcagcgtgg acaaggaccc 2640
tgggatcccc agagctctaa gcctcagtgg ctctccagc tcacccaag cccaggtgat 2700

ggtgcacatg gcaaacccca gacagcccct gcctgcctct gggctggcca caggaatgcc 2760
acaacagccc gcagcatatg ccctagggtg accacgcagt gaggctggtg cccatgctcc 2820
acactgggag gccaggctga ccccaccagc cagtcagcta caactccaca tcaactccac 2880
atgcgcccag ctcgagactg atgagtggaa tcagcttcca ggtgtaggga ccccttgagg 2940
ggccgagctg acatccaagg ctgaggaccc cagtggggag tgttctgttc cggcatatcc 3000
tggccgtaac gatttttata gttatggact acttgaaacc actactgagg gtaatttact 3060
agctgtggcc tcccactaac tagcattcct ttaaagagac tgggaaatgt ttttaagcaaa 3120
tctagttttg tataataaaa taagaaaata gcaataaact tcttttcagc aact 3174

<210> 1551

<211> 3773

<212> DNA

<213> Homo sapiens

<400> 1551

agtcgccgag gatggtgtca tggcgccccg aaccctgctt ctgctgctct cgggggcctt 60
ggtcctgacc cagacctggg caggcttcca ctcccttgagg tatttccaca ccaccatgtc 120
ccggcccggc cgcgcggatc cccgcttctt ctccgtgggc gacgtggacg acacgcagtg 180
cgtgcggctc gacagcgacg ccacgagtcc caggatggag ccggaggggc cggaatattg 240
ggaagaggag acagggaccg ccaaggccaa agcacagttt taccgagtga acctgcggac 300
cctgagcggc tactacaacc agagtgaggc ctgggctgcc agccacacag agtcatggac 360
aggtctctac agacacaact tagtgccagc ttggatgaaa ccctctgagg aatggctgcc 420
atctttcagg atgtggtgca tgtattgaat caaagatgtc tctatagtgc tgtgtttaca 480
gaaggaagaa tacgtgggtc caaaaaccaa gaagtagaag caggtgtggc tccatatcta 540
aacccttata ttcaccttca ggggtgatttt gcactttctc tctccaatat ctgggctctg 600
taggggagga ggtcctggtt tcccaaaggg ggcaccctgg caaggagaca tttaaatgag 660
agtccatgga actacacctt atggctgccc ccagggatgt ttgaatagta tgtgtccaga 720
cacaagaagg tgagaagagg aggaggcagg gctgctatca cacaaggagg gcaggagatg 780

tgtgtgtgga aataagagat ccacttggag accttatggt tccccttgtc ctgttgtaag 840
tgtgagcaga atcatccagc aaccagcct gagagggttt catattcaag agcccagaac 900
cctcaggaag gaaggattga gcgatactca taggtaatgt cccaaggctg tgctcctgtg 960
ctctgacatc ctcagcagga ttggtgcaaa gccctgcttc ccatgggctg ttcccagcca 1020
gtgactggtc acagcaggcg ttaaggcaag ccattcctgg gagacacggg actcctctga 1080
tggccaactg tagctggaag gtcctccac ggcttgtc aactctcctt agattgcctg 1140
tgctctagga tgcgtcgaac aaactttctc tccttctgtc cagcacttgg ggtcacactt 1200
gcatcgtggt ctgccgcctt ttccagggat ttctggctca cttcccatat tcccttacgg 1260
gtgtgtcccc tcataagatg tcgcagactt taagctcatc ttggcatctg ctccttgaag 1320
gacttggact aaaaattatt tccatctgca tatcaataac tcttattcca acctgtaaaa 1380
tccttctctt tatccaactt ctgccacccc cacagaatct attttacttg tgtgtgtagt 1440
atctctttga gttaacagat atttgttcta ttaagctact aaattttgag gtagtttgtg 1500
acacagcact agataactat taaggctttc ttaagtttcc attttccatg gatattatct 1560
acatatcttt taatcccttg cattttaata acattagcta tacttgctgt ttccaactct 1620
ttcctcctat ttttgaacat tttcaaattt tgtctttctc tgtccttcct tccttctttc 1680
ctcctttcct ccctcagagc tttctccctc cctccatttt ttttcataaa ctccaagtgt 1740
ttaggcaaaa aggaagcatt atttgaactt tatgctaaaa gtataatgcc gtaatttata 1800
atataaaagt aaagaaaagg aagttgttaa tgggaatatga aaaaatgcct aggggtgattc 1860
tatagccaag acagtacctt ttaacattta atttctgtct ccaactgaat gttttcagaa 1920
cacatgagca acacaagctc tttccattc ttggtacaag cacttgagaa atcaaattag 1980
ccttatctag tatgattaat gtccatacat catataatcc caccatctgc ctctgatca 2040
taccctctgg ggacattctt ggctatgtgt ccaggagaca tgtacaccaa tgtttatggc 2100
aaaaactaga aacaatcaca tatacatcaa tgggaattaa caaaattgtc gtataataat 2160
aaaaagtaaa acttcagcag caacagtga tgaacagcac cctcccatat cagagataac 2220
tctcctacac ataacatgca tcagcatcac agaagaatgc acattgtgtg agttctctgt 2280
acggggaagt ttaaaaaagc aggtcaaact gtgatttggga tatatatata cttattgtaa 2340
aaatcttttag agacaatgaa aaggaatagt aaatacaaga ctcaagatag aagttccttt 2400
tggggaatag aattggacaa cagccgaggg ttgcttcata ggttttgttt tttatgccag 2460
gaggggatgt ccaggtagtt aagttacttg atcataaatc tttatttatt tatttattta 2520

tttatttttcg agatggagtc tccctcttgt tgcccaggct ggagtgcagt ggcgtgatct 2580
cagttcactg caacctccgc ctcccagggt caagcaattc tcctacctca gcctcctgag 2640
tagctggaat tataggcatc caccacgaca cccaggtaat ttttgtattt ttagtagaga 2700
cgggggtttca ccatattgtc caggttggtc tcaaactcct gacctcaggt gatccaccaa 2760
cttcggcctt ccaaagtgtc gggattacag acatgagcca ccattcccgg cccacaaatc 2820
tttaaagtgt catttttcaa aatgcacctt gtgtgccatt cctgactgat tatttggaag 2880
tgaaagagaa aagaaaatac caaagttcat ctcaaggatc cttagcaata actacacacg 2940
ttaaaacaaa gccacagcca attgtaaaga gtcattgtgac agagaggacc aggatctcat 3000
gaaaaatagc cttggctaga aagaggtcat ttgaccctgg gctaattggc aactctctac 3060
attgtctggc atacagtgtt caatctgatg tgcaaggcaa ttgtatcttg caaagaattt 3120
gagaatttga tatgttgctc acattttacc acacatacaa gtggattaaa cttttacaca 3180
gtaaaaaaaa aagcattgtt gagcaaaata aattaaatga aaagacataa aggaataact 3240
agtgatgaaa tagcaataag aatggaaaac atgaaagaga tgcttgtaca gcaatgatag 3300
cagcacaaaa gaacagtgtt tttcagaatc atactggagt ccaaactact tctactacat 3360
ctaatttaaa aacacagtga aagatgttaa actttcatag gatgccact gaatagccag 3420
ttattgaaaa atcttgttcc tagattggag taaacaattt ctgcctacc tagccaaaca 3480
aattattgtc atgatgctaa gctagtgtat agacagagggt gtgagattca catttttcta 3540
gctgcaaagc accctgatta ggcaaatatt tttgtagatg cttgagtaag aaaattggca 3600
ttttgggcat tcttaaaccg aattagaaac ttctgaagag aaacaaacat agttacgatt 3660
gtaaaggcat tattgtatgg caccaaagtc ttgggacact ttaatttagc tactgtattt 3720
tctcaactct gttgcaactt atcaaagaga acattaatat taaaggcatt tac 3773

<210> 1552

<211> 3144

<212> DNA

<213> Homo sapiens

<400> 1552

acttttcgcg cgaaacctgg ttgttgctgt agtggcggag aggatcgtgg tactgctatg 60
gcggaatcat cggaatcctt caccatggca tccagcccgg cccagcgtcg gcgaggcaat 120
gatcctctca cctccagccc tggccggggc ctgggccgca tgcgccgtgg gctcctgtat 180
gacagcgatg aggaggacga ggagcgccct gcccgaagc gccgccaggt ggagcgggcc 240
acggaggacg gcgaggagga cgaggagatg attgagagca tcgagaacct ggaggatctc 300
aaaggccact ctgtgcgcga gtgggtgagc atggcgggcc cccggctgga gatccaccac 360
cgcttcaaga acttctgcg cactcacgtc gacagccacg gccacaacgt cttcaaggag 420
cgcatcagcg acatgtgcaa agagaacctg gagagcctgg tggatgaacta tgaggacttg 480
gcagccaggg agcacgtgct ggcctacttc ctgcctgagg caccggcgga gctgctgcag 540
atctttgatg aggctgccct ggaggtggta ctggccatgt accccaagta cgaccgcac 600
accaaccaca tccatgtccg catctccac ctgcctctgg tggaggagct gcgctcgctg 660
aggcagctgc atctgaacca gctgatccgc accagtgggg tggtagaccag ctgcaactggc 720
gtcctgcccc agctcagcat ggtcaagtac aactgcaaca agtgcaattt cgtcctgggt 780
cctttctgcc agtcccagaa ccaggagggtg aaaccaggct cctgtcctga gtgccagtcg 840
gccggcccct ttgaggtcaa catggaggag accatctatc agaactacca gcgtatccga 900
atccaggaga gtccaggcaa agtggcggct ggccggctgc cccgtccaa ggacgccatt 960
ctcctcgag atctggtgga cagctgcaag ccaggagacg agatagagct gactggcatc 1020
tatcacaaca actatgatgg ctccctcaac actgccaatg gcttccctgt ctttgccact 1080
gtcatcctag ccaaccacgt ggccaagaag gacaacaagg ttgctgtagg ggaactgacc 1140
gatgaagatg tgaagatgat cactagcctc tccaaggatc agcagatcgg agagaagatc 1200
tttgccagca ttgctccttc catctatggt catgaagaca tcaagagagg cctggctctg 1260
gccctgttcg gaggggagcc caaaaaccca ggtggcaagc acaaggtacg tggatgatc 1320
aacgtgctct tgtgcggaga ccctggcaca gcgaagtcgc agtttctcaa gtatattgag 1380
aaagtgtcca gccgagccat cttcaccact ggccaggggg cgtcggctgt gggcctcacg 1440
gcgtatgtcc agcggcaccc tgtcagcagg gagtggacct tggaggctgg ggccctggtt 1500
ctggctgacc gaggagtgtg tctcattgat gaatttgaca agatgaatga ccaggacaga 1560
accagcatcc atgaggccat ggagcaacag agcatctcca tctgaaggc tggcatcgtc 1620
acctccctgc aggctcgctg cacggtcatt gctgccgcca acccatagg agggcgctac 1680
gacccctcgc tgactttctc tgagaacgtg gacctcacag agcccatcat ctcacgtttt 1740

gacatcctgt gtgtggtgag ggacaccgtg gacccagtcc aggacgagat gctggcccgc 1800
ttcgtggtgg gcagccacgt cagacaccac cccagcaaca aggaggagga ggggctggcc 1860
aatggcagcg ctgctgagcc cgccatgccc aacacgtatg gcgtggagcc cctgccccag 1920
gaggtcctga agaagtacat catctacgcc aaggagaggg tccacccgaa gctcaaccag 1980
atggaccagg acaaggtggc caagatgtac agtgacctga ggaaagaatc tatggcgaca 2040
ggcagcatcc ccattacggg gcggcacatc gagtccatga tccgcatggc ggaggcccac 2100
gcgcgcatcc atctgcggga ctatgtgatc gaagacgacg tcaacatggc catccgcgtg 2160
atgctggaga gcttcataga cacacagaag ttcacgtca tgcgcagcat gcgcaagact 2220
tttgcccgt acctttcatt ccggcgtgac aacaatgagc tgttgctctt catactgaag 2280
cagttagtgg cagagcaggt gacatatcag cgcaaccgct ttggggccca gcaggacact 2340
attgaggtcc ctgagaagga cttggtggat aaggctcgtc agatcaacat ccacaacctc 2400
tctgcatttt atgacagtga gctcttcagg atgaacaagt tcagccacga cctgaaaagg 2460
agaatgatcc tgcagcagtt ctgaggccct atgccatcca taaggattcc ttgggattct 2520
ggtttggggg ggtcagtgcc ctctgtgctt tatggacaca aaaccagagc acttgatgaa 2580
ctcgggggtac tagggtcagg gcttatagca ggatgtctgg ctgcacctgg catgactgtt 2640
tgtttctcca agcctgcttt gtgcttctca cctttgggtg ggatgccttg ccagtgtgtc 2700
ttacttggtt gctgaacatc ttgccacctc cgagtgcctt gtctccactc agtaccttgg 2760
atcagagctg ctgagttcag gatgcctgcg tgtggtttag gtgttagcct tcttacatgg 2820
atgtcaggag agctgctgcc ctcttggcgt gagttagcgt ttcaggctgc ttttgctgcc 2880
tttggccaga gagctggttg aagatgtttg taatcgtttt cagtctcctg caggtttctg 2940
tgcccctgtg gtggaagagg gcacgacagt gccagcgag cgttctgggc tctcagtcg 3000
caggggtggg atgtgagtca tgcggattat ccaactcgcca cagttatcag ctgccattgc 3060
tccctgtctg tttccccact ctcttatttg tgcattcggt ttggtttctg tagttttaat 3120
ttttaataaa gttgaataaa atat 3144

<210> 1553

<211> 3692

<212> DNA

<213> Homo sapiens

<400> 1553

atatacactt	cagcaggaac	catgccat	tttaatacagat	gaaggggcta	tagactgttg	60
cttgctatgg	gtccctaaca	actgtttgtgt	tctcaaacac	tccagaataa	atcagggtaa	120
agtgggtcaag	ttatatacta	tcaacatgta	ggtttgcaaa	gcgtctagtt	gttgtagagt	180
tcaaggcaat	tttttgccta	ttctgtgagg	caaaaaatga	taagggtgtga	tccctgtaca	240
cttgtagaag	aacgagcctc	caggtactct	gcttttccca	gaagccataa	gcagcctgtg	300
atgggagctc	cactgatcaa	gttaatgaag	gcgagttctc	ttcccttcta	tcacagggtgc	360
tgcgacaaga	gactttggac	aaaaattgac	ttgagtaggt	gtaaggccat	tgtgccccag	420
gccctcagtg	gcatcatcaa	gaggcagcca	gtcagccttg	acctcagttg	gaccaacatc	480
tctaaaaagc	aactgacatg	gctcgtcaat	aggctgccag	gactgaaaga	cctcctccta	540
gcaggctgct	cctggctctgc	agtctctgcc	ctcagcacct	ccagctgccc	ccttctcagg	600
acccttgatc	ttcgggtggc	agtaggaatc	aaggaccctc	aaattcggga	cttgcttact	660
ccaccggctg	ataaaccagg	tcaggacaat	cgcagcaagc	tccggaacat	gaccgacttc	720
cggctggcag	gccttgacat	cacagatgcc	acgttctgcc	tcataattcg	ccacatgccc	780
ctcctgtctc	gactcgacct	cagtcactgc	agccacctta	cagatcagtc	ctccaatcta	840
ctcactgctg	tcgggtcttc	cactcgttac	tctctcacag	agctcaatat	ggcaggttgc	900
aataaattga	cagaccagac	cctgatctac	ctacggcgca	ttgccaacgt	caccttgatc	960
gaccttcgag	gatgcaagca	gatcactcga	aaagcctgcg	agcacttcat	ctcagacttg	1020
tccatcaaca	gcctctactg	cctgtctgac	gagaagctga	tacagaagat	cagctaagac	1080
acaccagcc	cagattcaac	aggaaaccga	tcttcccctg	actccccacc	gaggagagcc	1140
tctcctcgac	cctgcacggg	ctctgaggcc	agcgtcacac	tccctctctg	ctctcctgtc	1200
ccttgagccc	ttcctctaca	gggtggggcag	agagggtggg	ggacaccagg	cttatctgcc	1260
tgctcctctc	cctcctaagg	aaaagggagt	agcagattga	tctgagggga	aagcacaggc	1320
tgtgctgtcg	aggcgccctgc	tcgcttactc	gcctgccagg	aggccgggct	ctcagtttgg	1380
gggtgtttgtg	caaccttcat	ctgcactggg	ccctgtgccc	ctcctcccca	tccatggtcc	1440
ccagcagtg	ctggttctga	gcaaactccc	agggaagaaa	acggccctgt	ctccatggcc	1500
aggttcttgt	ggtgtccagt	gcgcgtctct	cctccatcac	actctcccgg	cttgccgcagg	1560

aggggcccagc agccccagga gtcccagacc cgtgccgata acactgggtgc tgttgagatc 1620
tcccaaacct cacgtcctta actgtgctct ccctcctttc ctctcccttg agcttggttc 1680
tgcccagcac tcgtgcttgt tcacataatt aggtttccca ccccagccta cccgacttac 1740
ttgctagtct ctatgaggtc cttattgcac ttattgggggt tgaagctctt cagaggagct 1800
ggaactgtct accccaggga cacaccatt tcgttgctac ccaagtggat tctgagacag 1860
gcaccatctc ctgtttcccc ctctctcttt tgccctccac tgactgccct tttccatgtg 1920
tcttcattct gcctgaagaa ggctttccca ggatgcacgt cctcagaggg agcagcctat 1980
ctccccaag ctggaggcgg cagaggactg ggccaagccc caacctgcct cccagccagg 2040
ctctccagg cctctggttt agcggagccc cctgagccca ggccctgtgc tagccccagt 2100
ggctcactga actttcaggg cagtcagggg gtccctgctta gaagccagtc accagccctc 2160
tgccctgcagc catggaaggg ggtgtgcacg tgccctgtgt tgtgtggctg agtgtattct 2220
gcgcgtgtgt gtggagggag ggagggaggg gagcatggtg tctcccgtc caccgccctt 2280
tgttgagccc catcagctgc ccccttttac tttgcattga acggcctgtc caaagatcct 2340
ctctctaggg cagcagagag ctttttgcac tttaaaaaa aaaagaaaga aagaaaggtc 2400
ggaatttctt ttgggtcaat atttttaagt gtgtgaggag atgctcagta gcagcagcct 2460
atggcaagag cttataaatg attgatgcaa atttgcactc tgctccccct ctgtaaggat 2520
actgatagca caacctcttc cccccaccc gccccgcctt ttggctgtcc atccctgtcc 2580
ctttctggcc ctcttcctgt agcccagtct caggctttcc tcttcctgaa gccctacaga 2640
gttaggggaat ggagcccagg caccaggggt ctaaagtgtg agccactgag aagagagacg 2700
ccaactgcac ccttgccact tccaaagcaa tagaggcaga gtgggtcccct ctttgccacc 2760
taggccagtt ttgaccctgg cattaactgg ccttagaaga aactggatcc tggtaggggg 2820
tggcattttg cttgtttctt ccaatctgct gaatcttttg actgcacctt acaaacagca 2880
gtctgtccc atgaccctct gccacttcc attggtctcc aggccccaat aatctgggggt 2940
tgaaactttg aggaaatgcc agtgacttat tccagagtgc ctcagttagg ggaacttctc 3000
tgtaaagaac cctgggtatt gagcaaaaac cttattatcg ttaatgacct ataattggaa 3060
gcttctgcc tttttctttg gttgctcctg tggaaaatac tgaaaagatt actttgtttt 3120
attttgttgt ctttttataa aaggggaggt ggagagaccc cttcagagca gggattgtgc 3180
cgggagagtg cctctgactt tgggacattt catccacaga aatttccaag ccaatggttt 3240
cttttgggtt ttggttttta tgtttgtttt ttggggtttg gaaaaacatg catttttacc 3300

gtgcacgtaa attggtcagc agaaaaggga gcccagaaaa ggcagcagat ggaccatgcc 3360
 cttgctgggt tttccttttc tttgggactg tgaggggaaa tggtttttag aggtgagggt 3420
 tgggccatgt ggaggaaaga agtgtctctg ttgggggaca gaggaacctg gggagtccat 3480
 cgcatgtcct acaatctgct cttagacacg gccttgccag gagagcctgc cctcagactg 3540
 caggaccaga acccctgcct ccattctttcc aagcaccggg gcgaaaaacc acaaaggaaa 3600
 ggaagaaaat ttatatatat ataataaaa atcacttggt gattaaaaaa ataactgctc 3660
 cataaataaa actcctaaag tcacttatgt tt 3692

<210> 1554

<211> 3037

<212> DNA

<213> Homo sapiens

<400> 1554

ctgagaaaga cctgttgacc acaaagcctt gtcactgtaa ggatatacctg aagttagtgc 60
 tcttaccctt caccagcat tgcttggctg ttggagaaac cacctgtgca ttttattacc 120
 tgctggaggc tgcggctgcc tgcttggacc tgtcagataa ttatatggtc tgtttcaaca 180
 tgggacgtat cactttagcc aaaaaattgg ctaggaaagc ccttcgactg ctgaaaagga 240
 atttcccttg gacctggttt ggtgtccttt tccagacatt cctggaaaag tattggcatt 300
 cctgtaccct gagccaacct ccaaagcacc ctagtgagaa gttgtctcta cctatgtgga 360
 gctctctcag ttctcccaga gtgtgggcat caaggacaag tggctgcact gtgagcagat 420
 ggccattcag aaaagcagtt tatgttgggt ctccaggagagg gggttgttgg ccacagctca 480
 gctcatgcag gccctggcct acaccaagct ctgccttggg catcttgact tctccatcaa 540
 gctgggtaat gggacttagg gatggtgggt ctagggcttt tagagagtac atgttcacag 600
 ctagacctca catggtgctc ttaaacctcc tcaggttttc aagctcgtga gatatgcaga 660
 gtcagagcta ctatatattc ctacgtactt ggggtctcatg gacaaagttt cttcaaaaaa 720
 aaaatctgca gggagataga gaattgcagc agctgaagac tctggaaact gcctcagagg 780
 caatctccca cctcctttgc ctagagatgg gtctgatccc aggcttagat attctcttta 840

taaatagagc tatgaagaga tttaaaggat gttaggctgc tttgaagggtg taagaccctt 900
tcctttccta cccatcctcc tcactcccta gctgggccca gtggctctct ctctcggcag 960
atttgggtctg tgtgtccatg tactggagag tcagtgggcg ctcatctctc agagttatga 1020
tgtccttggc ctggcctgct tttactctgc ttgcttagat ctgctgctct atggaaaagg 1080
taaactcttc gcaggtctct gctgtactcc tgagggattc agacctcaga tggggctcta 1140
ggtttggaa acaggcagtc atgaacctgt ccctcaggca tggcctctgc ccctgacctc 1200
tggtcctta aagtctggga accatgttgt gattcagggg tgtctgcctt tggggctctt 1260
tttcttccc tgtatcacat acctctata ccctgggtcc tacactgata ttatatacta 1320
gcgtgggttac cttctctgtc cacaggattg ctgtgtcggc cctttagtga gtgtctgcgt 1380
ttcgttcaag tctacgagca cagccgtgtt ctaacctctc agagcaatgt catgctgggg 1440
gtccactcct ccctggccat gtggtaatgt cttactcaag ggctgtggaa aaggatagac 1500
atttatgtca tttaagctgt ctctccccac cagacaggac ttttgaacct ctctaacc aa 1560
cttttaaaga ccattcacct ccataacct cccatcttat tagaagggtt cttgtccttt 1620
aacaggtttt ggcctatagg tcaagggtta cgtttagggt tacatttaac tgctagagta 1680
acccatagca aggctgaata taattggtct ccttttaagt ttccttgtat gtgagttagt 1740
agccttggtc actttctagc atcacaattc tgattgtcca tgaggtctta gaggcctaaa 1800
gaagtgatga tttaagcaa agtcatggt gggtaagcag cggaatttgc tgcaagctgt 1860
tactcttttc ctccagggtt gccaggaat cacagtggga cctgtttaag cactatttct 1920
ccaacgcttg cagttggtga aaagaaccaa tgccctgcta tttgggtgcac atggctttgt 1980
ccgattccta gaatgccatg tgtaaatgtt acagaaaatg ccagagggtta tcttcattgca 2040
tattcctcta gagcttcaca gccaaacct tgaggtacct gtttctcagc tgtcctttga 2100
ctaacacctg attcacttag ttctacccta tgggtgtctt tctaccacct gcattctctc 2160
ctttttccc ttttactggc tctgttccc tttactcttt gaatcctttg tttctccacc 2220
tagaaagttt ctacctacct tatgtatcct tcccgatatt attgcatcta gttctggact 2280
gggtttctta actttccacc tttgccagct gctaccagct atcattaaaa tattaacatt 2340
tagccttgct caatggacct gtagtctatg gttcagtcta taatttgata cagctccctc 2400
cagcccttct gagtctaaaa cacattccaa ttctctgtt ttccaggctt attttgccat 2460
cagtaactcc ttctgttcc ccagccatg agtgaatatg ctgaatgagg acctttgtaa 2520
gttctgatga agtagcattt aggagaatga agcactaatc ccagagctaa tggaccttcc 2580

tttcctttca gtactgtaag gagttcttct ctcaatgtgt gacctgccct gtctatcacc 2640
agtgggtatc tgagcttagg gcctctgtaa tgagatgtga aaagagagaa ttgatgtccc 2700
tgactaacag catcagacct ttgacacct gcttgaccag gatttggata aaaggagaat 2760
ttctgcagga aaataactct tagaaaagaa acttaggaat acagagattt gacagagtgg 2820
ctgatgtcaa ggagaacaag gatgcagaag aaactcaaga tgtatgtatt aaaacaaaag 2880
aacaataacc tgaagggacc atgattctgt tattgtatat aacacaagga aatgccccag 2940
attctccttt aaaagatata atgtacatat taagtatact agcctttata gttactgcta 3000
tctacatgtt tatcaaaata aaagactatt tttttct 3037

<210> 1555

<211> 1237

<212> DNA

<213> Homo sapiens

<400> 1555

ctcaaaaaa aacaaaaaca aaaacaaagc aaaacaaaca aacaaaaaac ctcaaaaaac 60
tagcttttct ggaaatcaga ttaaaacttg tcataaaaca cctgttgaat taacttaatt 120
ctgtgatcca ggctttttgt ttgtctcata accagcccta ggtagaagct gtgacttgcc 180
cacattctga atacatctaa gaagatactg tatctggaaa ttttaatttt tttttaagtc 240
tgtgtttagg tcttactgg ggagcactca gggaccaagg gatatccctt gtctcaataa 300
ttcatgctgg tgatttcaaa acttctggcc atgtcttctg aggctaaaaa tattgaagat 360
actgccttcc ccaaaaggac agaggagaag catgccaaaa ggaggaaagg aagttaccat 420
atcaaaagat acctgcacac atatgtgtgt tgcagcacia ttcacaattg cagatatgga 480
gtcaaccaag gtgcccacat gcttgtggat aaaggaaaagt gtgatgtata taggccaagc 540
acagtggctc acgcctgcag tccagcacct tgggaggccg aggcagaagg atcccctgaa 600
gccaggagtt cgagaccagc ccggacaaca aagtgaagacc ctgtctctat tttttttaag 660
tggtgtatat ataccatgga atactactaa gccataaaaa gaaccaaata atgtattttc 720
agctatttgg atggaactgg aggccattat cctaagtga gtaacacagg gacaaaaaac 780

caaataaccgc atgttttcac aagtgggaac taagctatgg gtaagcaaag gtatacagag 840
 tgctataatg gacactggag actcagaaat ggggaggatg ggccgggcgc ggtggctcac 900
 acctgtaatc ccaacacttc gggaggccga ggcaggtgtc tcacccgaga tcaggggttc 960
 aaaaccagcc cggccaacat ggcgaaatcc cgtctccact aaaagtacaa aaaaattagc 1020
 cgggcatggt ggcgctgcc tgcaaccccg gccactcggg aggctgaggc aggagaatcg 1080
 cccgaacctg ggagacggag gttgcagtga gccaggatca tgccacagca ctccagcctg 1140
 ggcgacagag cgagactccg tctcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaatcctt 1200
 accttttgtt caattcactg tctgtcactt ccgtctc 1237

<210> 1556

<211> 3311

<212> DNA

<213> Homo sapiens

<400> 1556

agctgggggc tgaagaccag gagccagcac acaggagcct ggggacatgg tcagttgttc 60
 ctccactgtc gtcctccagg gatgaggaga gccctggaga actgtgtagg ctgggaggtg 120
 tgacgccacc ttcctttctt tgatgttttg ggattagcct ttgtcccctt tctgtttatc 180
 cticctccca gagtcccgtc tgtaatgccc tcagggtcat tacagaaaat tctgtcccac 240
 atccatttaa gtttcaagca gtgaagcgtc ttgaacctcc ccaagaaaat tattctgaag 300
 ccccgttgtc caggaaactt ctgttcaggg cctcgttttt tttccttctt taaaatctct 360
 cccactcct tcattatgcc cccttgtacc aaacgccaca ctctccctcc cctcccgtgt 420
 gtttacacca tgccccatct ctgcaaaacc tcacttgaaa gccctggta gtcgtcactt 480
 ggcaaagctg catggattta gtccttttaa tcttttctgg taaattaatc cccaagcgc 540
 cttcattact tatgtgtctc ttccccgaat tcccttcaat ttgccgacgc ctttgagtt 600
 ctgctgagcc cagcacaaa caagatgtcc tacactgtga ggctgttttg cctgggggga 660
 ctgtcactcg gcatttcttt ggtgcttccc tccaaaaatc tcaaaatact cgtccagctt 720
 ccagctacca cagttgtctc ttgtgcccag ttctgggccc cccttcaccc tgtgctaata 780

caccacgagg actttcgtgt gggagggacg ccgggagtca ttcttccaga tggacagtgt 840
tggagggacc atgactcctc cgaaagtcta agctgaattht ggggtagggg gtgtgcatgc 900
ctgtgtttct ggagcaaggg gccatgtgtt tgcattttct ttttgggaaa tgttcatcaa 960
gtgataccac gggttggaga aataccagtc tgggtcccagg cctctcattt tatcagtaag 1020
gaaactgagg tccagaaaagg ggacacatct cagcccaagt cccacagctc tgtactagca 1080
agacctagat taaaatgaac gtttgtaggg atagaattht gtcctgttt gtaggtgaac 1140
tggctgaaat gtagaccaag gagttccctg agtgggctgg ggcactgttg gtccttcgtc 1200
acttggtagc cgccctacct tctttagccc agtagttacc acagctccaa agaccccatg 1260
aagtcagcag ccatgagccc ctccccacag accagtaagg gaatactgtc caaagggtga 1320
gggcacttcc atccgtcttt ccatgcaggg ccacccccct ctacttcacc ccagaggctc 1380
agacgagccc tccccaacat tccgctagga tccccatcat cccactagga tctccatcat 1440
cccgctagga tctccttcat cccactggga tctccttcat cccgctagga tcccatcatc 1500
atcccactag gatccccatc attccactag gatcccatca tcccgctagg atcccatcgt 1560
catcccgtca ggatccccatc gtcatcccgc taggatccca tcatcatccc gctaggatcc 1620
catcatcccg ctaggatccc catcatcccg ctaggatccc atcatcctgc taggatcccc 1680
atcatcccgc taggggtccca tcatcccgct aggatccgca tcatcctgct aggatctggc 1740
ttgtattgcc cccaggcgct ctggcagcca tcaactgttc cctggtttcc ccaggtctca 1800
ggccatctgt gtgggatcac tttatacctt ccatgcttht tctctgggct gcagacagtt 1860
agcaggtctc agtaagaact cactactaca gtggaagatc ttgtgtgggt ggcatgtggc 1920
tggccaaggc agcccaggac ccggcctccc actctctctc cctgttgctt tcaggtctcc 1980
atttgtccac atctgagaaa atcttccgtt tccaggacac agggctgtc ctgcgggtac 2040
ttgggagcct cttccttggc gggattctcg cctttggtht gggcttctct gattcctcc 2100
tggctctccag aacctccagc ctactctct ccatgtccgg catthttaag gaagtctgca 2160
ctttgtgtt ggcagctcat ctgctgggag atcagatcag cctcctgaac tggctgggct 2220
tcgccctctg cctctcggga atatccctcc acgttgcct caaagccctg cattccagag 2280
gtaaccaga gtcccttcca gaagcctctg tttctgttc ttctccctgt gactcttagt 2340
gattctgatg cagggaagtgt gcccgggtggc tctgctgccg tcaactctct aggaagatgt 2400
gggggtcatc tccagagtgg gtgggtgggg cctgggtgac tcagcacaca tgcaaatcag 2460
agcaaaccaa gaaaaccag actgggcctg taactgtggt ctctctctat cccaagggtga 2520

tgggtggcccc aaggccttga aggggctggg ctccagcccc gacctggagc tgctgctccg 2580
 gagcagccag cgggaggaag gtgacaatga ggaggaggag tactttgtgg cccaggggca 2640
 gcagtgacca gccagggcaa atggcttaga agcaggccac tccccagcct gctgccagca 2700
 ctactgtgc tcaagccgcc agggctcatc atggtagctg ggagctgtgg acgggagtca 2760
 ccaggtgggtg gggccaagcc agggactcat gacttttgcc cctcccttca gacctgggtc 2820
 acacaagggg cgagcaccag gccagcctgg gactggccag agctgggccc aagctgcgct 2880
 ggaatcgcag caggagaggg gagtgggctg gttcttccca ccacttccca ggctctgaca 2940
 gccgagactc atttccaagg cacagcagct ttctaaaggg actgagtttg gactgggttt 3000
 tggacctcca ggggctggag cttcatcacc tgggcagtgt cttttctcag agagcaggtt 3060
 tctttatagt ttggaaataa atggttcacg gtccactggc cgccttgtgt tgctggagac 3120
 gtgggggagc ggaggggaca gtgtgggcct ggcctctcct ttcctttccc tgcctggagc 3180
 cttcttcaaa tgtctggtct taagccaggc ctccttcatt ttctcgctcc tgttagaaca 3240
 ccagtccctt cccagtgagg gccccactgc acctgctggc aggaaataaa tgaatgttta 3300
 ctgagtactg c 3311

<210> 1557

<211> 3148

<212> DNA

<213> Homo sapiens

<400> 1557

agagcagagt acgagtctga ggcggaggga gtaatggtga gtcccgcgtg gccccgaggc 60
 ctgcaggccc gggcctgtct gaggcgtacg gggatccctg acgcccctct tttgttgggc 120
 tgggcgggag ggattggtgg ccgctcagtg accagcgccc gatggcacct tggagtggca 180
 agggccgccc gacccttttc tccccaggg ctctttgcac gcgcgtgtgc tgccggtgtg 240
 taaggcaggg gggcgagaac ccgggcgcac gcgcagcgtc tcacctgctt ctgcagggcc 300
 tttgtggatg tgtaatatct tgggtaaaaa tcatggtgcc aggcaggag cttgaccag 360
 cgtttcctga aaatttctgg aaaaacctga agaaggaaaa catttgacct tggaataaac 420

taaggttgac cttaaagctg gtctggttgc tcaccggagg agcgacaacg acccctaaca 480
gacgtaagga atcggaatt aaacttgga tattggttag tacattcaaa tgcgcttcct 540
taacgaataa gctgaggttt ggtgttaact ttcaaagcca aaacgtgttg agatgtatag 600
cacggtggcg ttgcctgttg ataatgtgat tacatttagt ttttgtttca aaacatttct 660
cttcctacag gcaggacaag cgtttagaaa gtttcttcca ctctttgacc gagtattggt 720
tgaaaggagt gctgctgaaa ctgtaaccaa aggaggcatt atgcttcag aaaaatctca 780
aggaaaagta ttgcaagcaa cagtagtcgc tgttgatcg ggttctaaag gaaaggtaaa 840
tgggagctgc agtggaaacta ttttttatag tgtgcagtgg agggaaaaga agtaattctg 900
gagtattaaa agtcgcttat taagtagagt ttatgtcgtt ttcaagatca ttaactgctt 960
tggttctaata ctgtttctta aagggaatg actaatataa agttgcttat tttatatgac 1020
caatgctatg atgcttattt tatgtgatag tttcagagta ttaaaaattg tcctcaatag 1080
gccgggtgcg gtggctctcg cctgtaatct cggcctccca aaatgctggg attacaggcg 1140
tgagccgagg caccggcca atcagtagct tcctcatagg atctcaggcg ttggatgagt 1200
gggctcaaac ttgcatgcta ggagacaaaa tgggtggagt tagctgggtg atgaccttcc 1260
tctaggaaca ctcaattggt aagggaaaaa atgcctcaa tgaacatgtg cacagcttca 1320
gtaaacacac tgtacatgcg gccctccca agtgctggca ggccactgca catgcggaca 1380
gccccccca aggaaaaacc aaggaggagg agacacaaac ctcagacca tgccattgtg 1440
taaaaatccc aagtcaagcg tcggacaggg tcctcggatc tctcaaattg cccacttggc 1500
cctcttccac gtgtactttg ctctcttcca ttcctgttct caaactttt aatatacttt 1560
aactcctgct ctaaaacttg ccttgggtctc attctacctt atcctctctg gccaaattct 1620
ttcctccaag gaagcaagaa tcgagttgct gcagacccat atggattcgc tgctgctaata 1680
gttgccattt ggattttttt tttcttttta gagtgttcta gaatgcatgc ttagagaagg 1740
gaatgtaatc ctaggacacc actcagctct gcaacagtat agctctgcag taatgagtaa 1800
atgctgtttg ttggtttact ttaaagctct gctactgaat atatacaaat atactgttat 1860
attttcctgg taaaacctt tattatacaa tcacttctt ttatttctag caattctttc 1920
ttttacagtg tttttatct gacgttaatg tggctgcatt gcatgtcttg tggctagtat 1980
ttgccctgct ttgcatcttc ttttaattcat ttactttcta ctttttctac ctatgtctta 2040
ggtttgtgct ttataaacia caggtgggta gatttcctat ttctagaagt ttattgagat 2100
tctccctcta ccaactgtct taccaattcc atttttccc acctctattg gtttgaaga 2160

tagaatctct ctctcttttt ttttttttaa gtgattatac ttggaatttt aacatgtctg 2220
 tgtaacgaag tctaaagtta gctaccactt taccctccta ctgagcaatc taaggatggt 2280
 agaatgtttt taactccagt cactttcctc ctggcttatg tgcatttcct tgatattttt 2340
 gatatctttt tatttttctt ttgaagctcc attaactaga tgttattagt tattccatcc 2400
 ttctttgttt ctatttactt acatgtttat aattttttta cataccactt tctcgtatag 2460
 ctcaaacctt ccctcgaaca tttccctcct tcttcaagta gattctcttc aagtacattc 2520
 tttatttagc gaaggatatt ggtagtgaac aatctcagtt ttctgaaata tctttatttt 2580
 gccctcatte tggaaagcta gtttcttact ttattttttt aatagacaga gggctcttgc 2640
 ttgttgccca ggctggcttt aaacttctgg cttcaagcag tcctcctgcc ttggcctctc 2700
 aaagtgctgg gattacaggc acgagccact gcgcccagca gtaacgctag tttcactggg 2760
 atcatggact cttaaagagc agaaggaact tcactgatta ttgactcag ctttttccat 2820
 ttccagaaaa gcctgccacc aggcacagaa agaatacatg acttccagag tcctcgtcta 2880
 tattgtccag actggttttg tactcctggc ctcaagtgat cctcccactt cagcctccca 2940
 aagtcctgag ataataggcg tgagccaccg tgatcccctt tacctttttc tttttttttt 3000
 cctttatttc ttcttaataa aaaaaagtgg ggggggatac atgtgcagag cgtacaggtt 3060
 tgttacataa gtatacgtgt accatggtgg tttgctgcac ctattgacct gtcctctaag 3120
 ttccctcccc tcacccccca acctcttc 3148

<210> 1558

<211> 3476

<212> DNA

<213> Homo sapiens

<400> 1558

agcttccccg cgaggctctgg gacaagtga gagaggtttc ttttctggac ctcaagtttct 60
 catctgtaaa atggggtgag tctgggaacc tgcaccttgg atggctgtca ggggctcagt 120
 agaggacctg gcacacagtt tgtgcttggc aatctggagc aggtgcagct cttttcagag 180
 tgacctggat tggatcctgg ggacagcatg tctcagggcc ggagccagtt cttggaggag 240

actctgcgca gggcatggat cactgtggtg cccttttccct gtgcctgtgc cttctgactt 300
tgcagaatgc aacaacagag acatgggaag aactcctgag ctacatggag aatatgcagg 360
tgtccagggg ccggagctca gttttttccct ctcgtcaact ccaccagctg gagcagatgc 420
tactgaacac cagcttccca ggctacaacc tgaccttgca gacacccacc atccagtctc 480
tggccttcaa gctgagctgt gactttctctg gcctctcgct gaccagtgcc actctgaagc 540
gggtgccccca ggcaggaggt cagcatgccc ggggtcagca cgccatgcag tttcccgccg 600
agctgacccg ggacgcctgc aagacccgcc ccaggagct gcggtcatc tgtatctact 660
tctccaacac ccacttttcc aaggatgaaa acaactcatc tctgctgaat aactacgtcc 720
tgggggcccc gctgagtcac gggcacgtga acaacctcag ggatcctgtg aacatcagct 780
tctggcacia ccaaagcctg gaaggctaca ccctgacctg tgtcttcttg aaggaggag 840
ccaggaaaca gccctggggg ggctggagcc ctgagggtg tcgtacagag cagccctccc 900
actctcaggt gctctgccgc tgcaaccacc tcacctactt tgctgttctc atgcaactct 960
ccccagccct ggtccctgca gagttgctgg cacctcttac gtacatctcc ctcgtgggct 1020
gcagcatctc catcgtggcc tcgctgatca cagtccctgct gcacttccat ttcaggaagc 1080
agagtgactc cttaacacgt atccacatga acctgcatgc ctccgtgctg ctctgaaca 1140
tcgccttccct gctgagcccc gcattcgcaa tgtctcctgt gcccgggtca gcatgcacgg 1200
ctctggccgc tgccctgcac tacgcgtgc tcagctgcct cacctggatg gccatcgagg 1260
gcttcaacct ctacctctc ctcgggcgtg tctacaacat ctacatccgc agatatgtgt 1320
tcaagcttgg tgtgctaggc tggggggccc cagccctcct ggtgctgctt tccctctctg 1380
tcaagagctc ggtatacgga ccctgcacia tccccgtctt cgacagctgg gagaatggca 1440
caggcttcca gaacatgtcc atatgctggg tgcggagccc cgtggtgcac agtgtcctgg 1500
tcatgggcta cggcggcctc acgtccctct tcaacctggg ggtgctggcc tgggcgtgt 1560
ggaccctgcg caggctgcgg gagcgggcgg atgcaccaag tgtcagggcc tgccatgaca 1620
ctgtcactgt gctgggcctc accgtgctgc tgggaaccac ctgggccttg gccttctttt 1680
cttttggcgt cttcctgctg cccagctgt tctctttcac catcttaaag tcgctctacg 1740
gtttcttccct tttcctgtgg ttctgctccc agcgggtgcc ctcagaagca gaggccaagg 1800
cacagataga ggccttcagc tcttcccaaa caacacagta gtccgggcct cctggcctgg 1860
aatcctcagc ctctctggcc gccagtagcc tgaggctacg gctcctgcta gagagggtgg 1920
caggcctgct gctggacccc agaggccact gtgaccgcca aggggccttt tccacttcca 1980

cggcctctcc aggcactgag gggaaggcat tgctctacct ctccctgaca ttttgctccg 2040
gggcagatcc aaccttacct ggggcagcaa actttgtcct ggtacctggg cccagctcgc 2100
cagggatgtg ggcagagcac cagcctgggc atcaggaagc caagtttcaa ggactgtctt 2160
tgagtctgtc tgtatgacct tgggcctgcc acttctcaca gaccctaggt atccacagct 2220
gtgacatggg ggcaagcggc tttgtttcag cctaaccag gagcttagta aaaattgcat 2280
aagaccaggg ggaagagtgt cagcgtgggg tgggaattcc cgcggcctcc acctgcttgc 2340
taggggcagg atctcattca ggctgccctg gaagcacctg cttggccctg ccaccttctt 2400
ccaggggagg gccagatggc atcctggctt ggggcgggtg ggacctacc aggctctgag 2460
actttactgg cctatgcctg aggcctcttt tcttttaact ccctaaatta tgatgactcc 2520
aagtccaagc ccacccttcc caaagattgg gaggttccgc cgttcccaga ggctcctcct 2580
gcggtgctcc caagacttcc atagaccatc tggaccagta gcccatccc cagttttctt 2640
gggggcagag gaaaacgctt ctttctctc cagctgaatc agctggatcc cagtgtcctg 2700
gctgtttggt gattgggcaa gattgaattt gcccaggtag gcgtgagagt gtgggtttta 2760
aattcgaagc tcaggccata gtttcagaga atcaccctta cccagacct tcatgagaca 2820
gtgctcatga agccagtgcg tttcccagaa cgaacactag gcggcacctg tggccacac 2880
tcagaggccc ttggcgccaa gactgcatct agaatcgctc aaacacctgt ttgcagacct 2940
catgcaccag ctggaggggc cgtaactgca ggactgcgcc tactgagtga cccatttctt 3000
ccaggaggaa aggcaagaca cgcttacacg gccatttgtc tcttttcca atgcggcggt 3060
gcactttcgc tcttgggggc tgcacccag acatagctgg caccagagca ggggtgctcag 3120
gtggtgtgct cagggccctg cccagggcca ctgggccgtt ttgatgacct cgaaggtcac 3180
aggcggaaaa taggagcagg atttcccctg gggaaaagt ctcctgggac atcttctgct 3240
cttctgtaca tttctagatg caaataactc cttcaccagg cagtgagtgg cgtaggctct 3300
ggagccaggc tgcctgggct ccaatgccag ctctgccact tgctagctgt gagactgtgg 3360
acaaaccact cagcctctgt gtgcctcagt tttcctatit gtaaaataga ggccatagt 3420
gtacctatit tgaagactaa gtaaaagaat tcaaataaag agacttggca cagagt 3476

<210> 1559

<211> 3075

<212> DNA

<213> Homo sapiens

<400> 1559

```
atTTTTggtg atcaggactg aacagagaga actcaccatg gagtttgggc tgagctggct    60
ttttcttgtg gctattttaa aaggtgtcca gtgtgagggtg cagttgttgg agtctggggg   120
gggcttggta cagcctgggg ggtccctgag actctcctgt gcagcctctg aatttatctt   180
tagagactat gccatgcatt gggtcgccca ggctcccggg gaggggctgc agtgggtctc   240
aggtattagc gggagtgggc agagcacttg gtacacagac tccgtggagg gccggttcac   300
catctccaga gacaattccg agaacacggt ctatctgcaa atgaacagcc tgagagccga   360
ggacacggcc gtatattact gtgcgaaaga tatgggtgtc acccgaagcc gatactttga   420
ctactggggc cagggaacct tggtcgccgt ctctcagcc tccaccaagg gcccatcggt   480
cttccccctg gcacctctc ccaagagcac ctctgggggc acagcggccc tgggctgcct   540
ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg aactcaggcg ccctgaccag   600
cggcgtgcac accttccccg ctgtcctaca gtcctcagga ctctactccc tcagcagcgt   660
ggtgaccgtg ccctccagca gcttgggcac ccagacctac atctgcaacg tgaatcacia   720
gcccagcaac accaagggtg acaagagagt tgagcccaaa tcttgtgaca aaactcacac   780
atgcccaccg tgcccagcac ctgaactcct gggggggaccg tcagtcttcc tcttcccccc   840
aaaaccaag gacacctca tgatctcccg gaccctgag gtcacatgcg tgggtggtgga   900
cgtgagccac gaagaccctg aggtcaagtt caactggtag gtggacggcg tggaggtgca   960
taatgccaag acaaagccgc gggaggagca gtacaacagc acgtaccgtg tggtcagcgt  1020
cctcaccgtc ctgcaccagg actggctgaa tggcaaggag tacaagtgca aggtctccaa  1080
caaagccctc ccagcccca tcgagaaaac catctccaaa gccaaagggc agccccgaga  1140
accacagggtg tacaccctgc ccccatcccg ggaggagatg accaagaacc aggtcagcct  1200
gacctgcctg gtcaaaggct tctatcccag cgacatcgcc gtggagtggg agagcaatgg  1260
gcagccggag aacaactaca agaccagcc tcccgtgctg gactccgacg gctccttctt  1320
cctctatagc aagctcaccg tggacaagag cagggtggcag cagggaacg tcttctcatg  1380
ctccgtgatg catgaggctc tgcacaacca ctacacgcag aagagcctct ccctgtcccc  1440
ggagctgcaa ctggaggaga gctgtgcgga ggccgaggac ggggagctgg acgggctgtg  1500
```

gacgaccatc accatcttca tcacactctt cctgttaagc gtgtgctaca gtgccaccgt 1560
 caccttcttc aaggtgaagt ggatcttctc ctcggtgggtg gacctgaagc agaccatcat 1620
 ccccgactac aggaacatga tcggacaggg ggcctagggc caccctctgc ggggtgtcca 1680
 gggccgcca gacccacac accagccatg ggccatgctc agccaccacc caggccacac 1740
 ctgccccga cctcaccgcc ctcaaccca tggctctctg gcctcgcagt tgccctctga 1800
 ccctgacaca cctgacacgc ccccttcca gacctgtgc atagcaggtc taccacagac 1860
 ctccgtgct tgggtgatgc agggcactgg gggccagggtg tcccccagc aggacgtcct 1920
 tgccctccgg accacaaggt gctcacaaa aaggaggcag tgaccggtat cccaggcccc 1980
 caccaggca ggagctggcc ctggagccaa tcccgtccac gccagcctcc tgaacacagg 2040
 cgtggtttcc agatggtgag tgggagcatc agccgccaag gtagggaagc cacagcacca 2100
 tcaggccctg ttggggaggc ttccgagagc tgcgaaggct cactcagacg gccttctctc 2160
 cagcccgcag ccagccagcc tccattccgg gcactcccggt gaactcctga catgaggaat 2220
 gacgttggtc tgatttcaag caaagaacgc tgctctctgg ctctgggaa cagtctcggt 2280
 gccagcacca ccccttggt gcctgcccac actgctggat tctcgggtgg aactcgacct 2340
 gcagggacag ccagccccag agtccgcact ggggagagaa ggggccaggc ccaggacact 2400
 gccacctccc acccactcca gtccaccgag atcactcgga gaagagcctg ggccatgtgg 2460
 ccgtgcagg agccccacag tgcaagggtg aggatagccc aagggaaggc tgggcatctg 2520
 cccagacagg cctcccacag aaggctggtg accaggctccc aggcgggcaa gactcagcct 2580
 tgggtggggc tgaggacaga ggaggcccag gagcatcggg gagagagggtg gagggacacc 2640
 gggagagcca ggagcgtgga cacagccaga actcatcaca gaggctggcg tccagtcccg 2700
 ggtcacgtgc agcaggaaca agcagccact ctgggggcac cagggtggaga ggcaagacga 2760
 caaagagggt gccctgttcc ttgcgaaagc ggggctgctg gccacgagt ctggacagag 2820
 gccccacgc tctgtgccc ccatcacgcc gttccgtgac tgtcacgcag aatctgcaga 2880
 caggaaggga gactcgagcg ggagtgcggc cagagcctgc ctcggccgtc agggaggact 2940
 cccgggctca ctcgaaggag gtgccaccat ttcagctttg gtagcttttc ttcttctttt 3000
 aaattttcta aagctcatta attgtctttg atgtttcttt tgtgatgaca ataaaatatc 3060
 ctttttaagt cttgt 3075

<210> 1560

<211> 3136

<212> DNA

<213> Homo sapiens

<400> 1560

ttttacatta gctaggtgtg gtgctgcaca tctgcggtct cagcttctcg ggaagatcgc 60
ctgagcctga gagttcgagg ctgcggtgag ctgtgactgt gccactgcac tgcagcctgg 120
gtgacagagt gaaaccctgt ctctaaaagt taaaattaaa acgcaaactt aaatgtgccca 180
aaatgttggt ttttagacat gcaagaaagc acttcagcca agcagaaggg agccagctgg 240
acgaggtgcg ccaggccatg ggcatgctgg ccttcccgcc cgacacgcac atctccccgt 300
acaaggacct tctggaccct gcacggtggc ggatgctgat ccagcagttc cggtacgaca 360
actaccgact acaccagctg ggaaacaatt ctgtgttcac cctcaccctg caggccggcc 420
tctcagccat caagacaccg tatectacct cccgtgcgca gtgcggtttg gcctgggggtt 480
ggcatctttg gtcataatgt aacacgtga ccttgcacct tgccactctt gtctctccac 540
cacagacagc cccgagctcc cgtgtgctgc acttgcgtgg tgtctggatg gtcgggggtgg 600
ggcctgtgtg aggggcctcg gatgcgtcgt gcagccttcc ctctgggaag tggcgcgctt 660
cctctctcat catctcagag gccgccatgg gcattgatct aaaagcccga ttttgatgtg 720
ttctggcagc cggcagatta ccattcagaa tagttttccc gtgtgattac caagaacctt 780
gcctgtgact gactctgtcc cgcctgtgac tgactctgtc ccacctgtga ccgactctgt 840
ctgcctgtga ctctgtccct gcctgtgact gactccatcc tgcctgtgac tctgtcccac 900
ctgcgactca ctgagttcct gcctgtgact cactcggtc ccgcctgcaa cggacttggt 960
ccctgcctgc gactcactgt ggccctgcct gtgaccgagt ctgtcccgtt tgtgactgat 1020
tccttcctgt gactgactct gtcccacctg caactgactt ctctctgcct gtgacagact 1080
ctgcccctgc ctgcgactga gtctgtccct tcctgcaact gagtccatcc cgctgtgac 1140
tctgtcctcg cctgtgactg actctgcccc tgccctgtga ctgtctcacc tgtgactgac 1200
tccgtcctgc ctgtgactca gcctcttact gactctaccc ctgcctgtga ctgactctgc 1260
cctctcctgt gactgactct gtccccacct gtgactgact ctgtccccac ctgtgactga 1320
ctgtcctcct gcaactgact ctgtccccgc ctatgaatgt ctttcatgtg acctgcctca 1380

ggcccagagg gcagtgagtg tttcgcgatt gctgctggta cctggctgtg ccgggggtatg 1440
aatgagactc aggccccctc ccttgcccc tctttgtgga actctgggcg agagggctgg 1500
cgtgcttgcc cactgcctgt tcctaggtgc cagcagaacg tccctgctgg gtggctcttg 1560
tcctgcctgg agaggttgcg tggccgggga gagggcggcg ggcgacggag ccactctgtg 1620
cctgtgggcc tggctgtgga ggccgggggtg agaaggcgca ggcttcttgt ctccaccgag 1680
gcctcagtgg ggctgtttag ctgtcgagtg cagcacttcc tgtgcctcga aagacagccc 1740
cgtgtagtca gcatggcgcc cacatagcca gaagggcacg cagcccaggg cagagtggcc 1800
acagggggct gggctcacc cggctgcctt gggtggcccc caacccttcc ttgaccgat 1860
gctcagacag tgctacaagg aggacggcag ctccaagagc cctgactgcc ctgtgtgcag 1920
ccgctccctg aacaagctgg cgcagccctt gcccattggc cactgtgcca actcccgcct 1980
ggctctgcaag atttctggcg acgtgatgaa cgagaacaat ccgcccata gaagtgcctaa 2040
cggctacgtc tacggctaca attctctgtt ttctatccgt caagatgata aagtcgtgtg 2100
cccagaaacc aaagaagtct tccacttctc acaagccgag aaggtgtaca tcatgtaggc 2160
cccacgtcgt gaagcgacg cctcggggac gggctgcagt gggcggggag gccacgcctt 2220
cctcctgtcc cacgtccag cctgccgcgg cgtttctgtt tcttgcgacc aaagatccgt 2280
gagcaacgat aaatactctt aggaagagag aaaataaggt ttcataagtt tgtacttgaa 2340
aacatttgga ttggtaggat ttgttaacac gtcaaccatt tgatgcttct gaaaagtact 2400
ttcaacttgc gaaggaaact cttcttttaa gactgacctt aacaccgagg gaaacttaag 2460
aacgtttaaa atataggagt ccgtgatttc cctgtgtttt cagtttcttt ccttctgtga 2520
acgatgagac ttggagaacg ggctggctct tcaccacttc ctgttgcccc tggcctggcc 2580
ggggaagggtg gcagcggcac cggactgacc tgcagtgacc cgcgatgccg cgccacgagg 2640
gacacttatg gcttcattcg agagctgctg ccaaaacgcc tggcgccgcc accgtcgggg 2700
gctggcttcg aggacgccc cctgcctcgc gggctcgtgtc cgcgggactg tgttcgtacg 2760
tgcatagttt cgatatcaca tcgcggggct gtgttcgtag ctgcgtcgtt tcgatatcac 2820
acctctgtg tgccgcctta cttctgtctt cgagaatgta taacgtggaa atccacggga 2880
ccaaatttct gcagaggcct tgccggatgg ttccataact gtagagtcta attgctatcc 2940
attacagaaa ttaatcgttc agttgaaaga agtactgatg acttttcaaa acaaatgaac 3000
caccgtagct gacagagaac cgtatcgtag aggtttgtag ttagtgctta tttttgcatg 3060
ttgatgttga ctagctaata aactgtaaat gtaaaccatg cgaataaaat ggttttctat 3120

ttctcatttc cgtgtg

3136

<210> 1561

<211> 4197

<212> DNA

<213> Homo sapiens

<400> 1561

atgtagggtcc caccagcctc ggaccacct cttgtcttct ccctaaatct caaagcttaa 60
aaggacagaa ctcatgtagc aggaagcact ggcaatagct gttttcctgc ttcttttagc 120
catattatatt ctgttcttct gatgctacaa cccccaggt catgaatttc tctgtcagtg 180
ctgggtttat tatctctgct caaaccttgt taaactgccc cagaatagga tactcttctt 240
cccggcctca taaagatttg agccctctcc aatgtatgtt acaaaaattt tctctaggct 300
tctcagagga ttatggggtc tgccttaaaa aaggcaaact ctggacactc tgtgaagcag 360
aatggccaaa ttttggagct ggggtggcccc cagaagggtc actgaagctc gcagttgttc 420
aggctgtgtg gcgggttggt gctggaactc ctggtcaccc agatcagttt ccatacattg 480
atcagtggct gagtttggtc aggagccctc ctccatggct ccgctaattg atcattcata 540
attctacctc taagtccctt ttgagccaga cctcactttt gcctcaacct tcagctggct 600
cggtcctcc tattctgctt ctttctgaag aagaagagaa tcttcttcac ccagttccac 660
cagcttataa cctctttgct cttttagaat cttcccttgt ctctcaggg atgtccctg 720
tgggctgtcc gcctgttgcc tctagattgc ggccatggca ggaggaggta gccctcctcc 780
tcccactgag agaggcacia gtccctttgg gtgatgagca cttagctcca ttcttagttt 840
atgtccctt ttctacttct gagctgtata atgggaaaga ttataaaccc accttttctg 900
aaaagcccca ggtcttgacc tctatgatgg agtccatgct ctggacccat tggccacact 960
gggatgactg tcagcagctc cttttgacct ttttcaacgc tgaagagaag gaacagatcc 1020
aaagagaggc cagtaagtat ttctcacat cagccaatag gccagaagtg gaagctagag 1080
gcctccttaa ggaagttttt cttctacctc ggccctaatta ggacccaaac tcctcaggtg 1140
ggaagagatc tttagacgat tttcacgggt atctccttgt gggtatcaag tgagccgctt 1200

ggaaacccgt aaacttgtct aagatgactg aagttgtcta ggggcctgat gagtcactgt 1260
gaacgtttta gaatgcctcc aggaggccta tcagacttac accctttctg acccgagtc 1320
tcctgaaaat agctgtgctc ttaatttagc atttgtggtt caggcagccc ctaatattaa 1380
aagaaaccta caaaaactgg aaggatttgc tgggatgaat attagtcaac ttttagaaat 1440
agcccaaaaa gtttttgaca atcaagagtt taaaaagcaa aaacaggcag ctgaggcagc 1500
tgacaaggct gctgacaaag catcagaaag acaagcgaaa atcttagtgg cggccatcca 1560
ggaagccaga aaggaaaggc ccccatcaca gaacactagc cagggggccc tgggtccatg 1620
ctagaaaagc cagaaaagt accagggttc cttcaaaga aaaaccaatg tgcttattgc 1680
aagcagatag gaaactggaa aaaggaatgc ccattaagac cagaggaaaa accagaagac 1740
aaaaaagtcc tcaccctccc tgctgcggag gactctgatg attgatggga ccagggtcc 1800
tttactcttg gccctcggga gcccatggtg accgccatag tagggcgcca gcctgtacac 1860
ttcctaattg acaccagggc ggaacactca gtactgcaga tgcccctagg cagtgtctgt 1920
aataggaaag tggttgtaca gggagctact ggagttattc aggaatatcc tgtcaccag 1980
tcataagagg tgagtttggg acagaaaaga gcaactcact cattcctctt ggtcccagag 2040
tgtccttttc cctcctagg atgagacctg ttccacaagc tgtaggcac tatttccttc 2100
tcggcccaac aagctcacct catgttaggg gacacaatgc cccctattgc tcagctcctg 2160
ttaaccaccc ctctgtcaga agaatatctg ttagtttcac ctccaaaacc accagaaaat 2220
aaaactaatc ctctcctact ggaattacag actctctttc cttgagtctg ggctgagcca 2280
atccccccag gacgggctaa gcaccatcca ccagtggtag tagaactcct ggccaccacc 2340
ttgccagtcc aggtgaagca atagtctgtg agtcagcagg ctaggagag aatcaacccc 2400
catattcagc aactgttaca aactggcata ctacacccat tgccagtcca tctggaatac 2460
tccatttttt ccggtccaaa aaccagaaac aaatgattac tggcctgtac aggacttaac 2520
ggaagttaac agacagatag tctgtgtcca cccaactgtc cctaaccctt atactttact 2580
cagactgctt ccaccagaac acacaatttg cactgtcctt gacttaaaag atgctttctt 2640
tgctattcct ctggccccc aaagccaacc tatctttgct tttgaatgga cagatcctgg 2700
ctcaggaaac accaccaat tgacctggac tcagttacct caaggtttta aaaattcccc 2760
cacccttttt aaggaagccc ttcaacagga tcttatacca tttcaagcca gaaccctaat 2820
tgtactcttc ttcagtacac agatgacctt ttattaggta ctgaaactac tgacagttgc 2880
ctgcaacaca ctaaggacct attttacctc cttcaggaac tcaggtatca agtctcagcc 2940

aaaaatccca gctttgtctt cccagagtct cctacctagg gtatgagata aacagaggaa 3000
aaagggcact tatcagtgtt tgtaaggaag ccatcccaca aatccccact cccaccaaga 3060
gacaggtacg tgaatttctg ggggccataa gatactgtcg cctgtggata ttaaggtccg 3120
cagagattgc caagcccctg tacactgcta ctggaaggaa tggcccacta gtatggactg 3180
acaccaaaga ataggctttc aaaaacctga aaaaggcatt aactgaggcc cccactctag 3240
ccctccctaa tatctcaaaa ccatttcacc ttttattcac gaaagccagg gagttgctaa 3300
gggggtgctc actcagactt taggaccctg gagatgcccga gtagcctatt tgtctaagag 3360
actggaccct gtggccgctg gatggccaac ttgtctgtga gccgtagtgg ccacagcaag 3420
cctagtccag gaggctaata aattgactct gggccaaaac ttcaccctca tggctcctca 3480
cgccatagag attttgctac caagtgttc tggcaaattg atgtcaaatt ctgcctcct 3540
gcagtatcag agtttactgt tagatcagcc tcttttgact ttctcttcca taaggtgttt 3600
aaatccagct gctttcctcc ctgatccaaa cttcactaca cctgtccgtg actgccagga 3660
actgttagaa actacagaaa ctggctgaac tgatctccaa gatatgcccc tataaacata 3720
taccatgttt atagatggta gcagcttcct cgaacaggga gtacaaaaga ttggtgcagc 3780
ctttactacg gagacagatg tgctgtggtc ccaggtgttg ccagcaggta cctcggcaca 3840
gaaggctgaa ttgatcgccc tctcagggc tgtctgatgg gttaaggaca aatgtattaa 3900
tatttatact gacagcaggt atgcttttgc tactgtacat gtacatggag ccgtctatca 3960
agaatgcggg ctacttactt cagcaggaaa gattgtcaaa aacaaagaag aaatttttagc 4020
cctgcttgaa gcaggtggct gtaattcact gcaaaggaca tcaaaaggaa gacttggcca 4080
ttgcccattg gaaccaaaga gcagattctg taactcgaaa ggcagcatgg ctccctgtca 4140
tgcctttaac cctgtgttcc gctgtgtcct ttccgcaacc taacttggca gccccag 4197

<210> 1562

<211> 4048

<212> DNA

<213> Homo sapiens

<400> 1562

aaaaaatcca gtaaaacttc cacaacagtt aaaaggatat gtataatttg taataaaaga 60
aagaatttcta caagtaaata tcaacctcta cttttaaaaa gcagctgggt tagaaggggg 120
gggtctgtca agatacgggt gagacacaga cccaatgaat caaaattggg gagcacaac 180
agcacatggc caaactggta caagaagagc atgggaaggt gggcattctg tactcagctg 240
tggttccttc tggtttcctg tgttccttg ttgatgtcct ctgtgttcac ttgacattac 300
ttggtggcac agaaattagc ttgctgggga aaattcagta tgacgtcatt ggtgcactgc 360
catcattatc ctgtttacca ttctcatggg agccaattca tgttactgaa acaacgtatt 420
ggagcaaaac agactgtaag agcagtggct acattggcac ttttctcgtg tcttccttac 480
tgcagcctgg tataatggaa ggagtgtgga tcaagtgaac tgacctcaga tcctatcttt 540
gtcccctact ggttgtgtga ctttgggtaa tttactcatc ctcttaaacc gtatcccctt 600
acctataaaa taaggatcat aagagccact ttttgaaggc ttatggttga attagtgaga 660
taatgtgtgc ctggcatata ggaagtacac agtaggggtt agtttatttc ttactttctt 720
ctctacccaa gtcgtgcta ttattgcctc tttccttcca ggccatcaca gagccatgaa 780
ccagcagcac atgatgcctt cccaagcctt ccagatgcgg cgttcctgc ctccagatga 840
catccaggat gactttgatt gggattcaat tgtgtagggt ttgtttctgc aagacaccag 900
accctaacgt tacctttctg tgcagtgaag ggaaagggtt aagagaatcc agttgagaaa 960
acaaacttgc taatcacttt accaatgtta tcaaaattac ttttgaagac aatcagaagg 1020
attttagctg gataacttac tgcttttata tgacccaagc aagtactaca tgtttgtctc 1080
cctgccagct gccctatgta gtccttaact gttgtgtgat ttggacggct ttttgcatat 1140
ttgtgtcagt ttgatgttaa ccacaagtgc cagactgatt tttcagacgg agcctatttt 1200
gctgcaagca gtttatataa agatacatat gtgtaaatat atgtacaaa attactgaaa 1260
ggcttcagtt ttttctaatt ggattattat gtcttgaaag ttattgtcag tttttattcc 1320
ttgttaggct attttctgca ggatgctttt aactgggtga ggaaactgaa aggaaataga 1380
ttttttccaa aaccagttc cccttattta atctttttta gaaatgtggg taatgaattc 1440
tatctaataa gtcaaggaaa ccagaatttg acacactcca acaatccaaa ggggcatggt 1500
gctcctgagc agcatgaaga actgaccaa ttggttttga tgcttggggg atcatagagt 1560
atttatgtct gcttttctaa atctgcatta taatagctct aaaatttggt gatttgtaag 1620
aaattgggca ttgcttggct ctttaaacac atcagtgcct ccacattcac ctatgtattt 1680
attattcaaa agtgtcattt taatatattt tgctaccttc tgtgaatgct tagctcctgt 1740

cggttcatt aaggagaaat gtgtctgaaa gcacagaact attattatit ttttcttttt 1800
ttgagatgga gtcttgccct gttgccagagg ctggagtgcg gtggcacgat ctgggctcac 1860
tgcaacctcc gcctcccgagg ttcaagcaat tctcctgcct cagcctcccg agtagctggg 1920
agtgcagggtg cacaccgcca tgcctggctg attttttgta ttttagtaga gatgggggttt 1980
caccatgttg cctgggctgg ttgcaaactc ttgagctcag gcagtctgcc tgcctcagcc 2040
tcctagagtg ctgggattac agacatgagc cactgcgcct ggcccagcgt tacttttctt 2100
gataagaatt tacagataag acactcagag agacattgtg tcattctcta tcactactcc 2160
ttttaccatg tgaatagatt tctctgtctt ggcatctctg ctgattcaga cttattagtt 2220
aaatcggatt tttctggaat ttgaatcaga tttcatttgg gcaacaacag cagggcgagg 2280
tttctaaagc aggtttcccc actcatctag gttgtcttga aaggaggata gagccactta 2340
cagttttatt tgcttcagtg tttaatgtag atattatgtg gcctgctgtt tctgttgtct 2400
tgtatgtctg tgtatgcatg acatttggct cctttctttg aaatgcagcc cctcttacgg 2460
gttttttagt ggtgggtggtt tgttttggtt catatcatat cacagtttgc atggactgat 2520
tatcttagtt ttatgataaa actagaagaa atgagggttt ttttttaatg aatagatttt 2580
gaattgattc tttagacccc ccaaaaagtg tcagttctaa tggggaaata tattccatca 2640
agtcaaagag taataactgc tcaactagttg ctttttagca tctctggtct tatcagccat 2700
gctaaatcac ttttaattagc cttagtgtat ctatgggtga gtaatctcta cttgaactaa 2760
acaaacatct tttgtttctg tgtgtgtgtg ctgtgtgtga gagtgtgcgc gcgcgtgtgt 2820
gtgtgtgtgt tttaatggag tgttgccttg aatgaatcac tgggaagcca gccatggtaa 2880
gggctggtga ggttggggag aaaggaagag ctttatgttt ctctgttgtt tggaccctac 2940
ttggcatgaa aaaggaagct cagttccagc cccttggatc aacgaaaatc agaggattct 3000
ggaaaggcag ccaacttgcg cctcttagaa ggatcagagg caagatgaga tggcagcctg 3060
cagagtaaatt gcttgaaaaa aagaggggtg attttcaatg gtttgcttaa gtcactgttt 3120
tctagacacc aaaatagctg ttttgaaact gttttaattg cttgggtagc aatgtgcact 3180
ttaaacaatt tggatattgg aatgcagtct catactagat gatttgagta gaaccactga 3240
tgatgatitit ataaattgtg tgaagcgaat ttccatttg gcaatcattt actgatttgc 3300
agtgatgaat atttttatga gaatttaaac ttagcaagaa tggccatgga ggcaaagcct 3360
tcaccagac ccatccact ctcctgtgat ccagggtggtc caggagccca ggacaggcct 3420
tttctgtggg ccctggccag acagggttac ctggtgaggt gcagagagtc cctctagtgg 3480

ccattttgta tggtagttgc taatgcagaa caagttctgt cttgggctta aattgactga 3540
 agactttagg gggaaagaat agtaaagca tgtaaacaaa tggggacact ctgttcagga 3600
 gaataatccg actggcattt gtggcagttt ttgaaatgta aatgtattca tgtgtgttct 3660
 tgtaaatacg tgtcgtcag atgtcctttg aagtgggagg gaatcaatcc ggggataatt 3720
 tcaaatggaa tagagtattt tgatattggt cattcagagg gtgatgtgta catatctata 3780
 ttgtatatat gtgatgaaaa tgcattggct ttttgtgcag atacaacctg ctctctgtac 3840
 tgctgttggg cagtcagtgt tttaatgttt ctacagtttt gctattgcac gatttcatat 3900
 tttgcctcta tgatgaacgg caaccattat ttgtaactgt ttagtgctgt aaagaaatat 3960
 tccaagtgtc attaggattg ttgctgccag aactgatatg catgaatggc acttaaaata 4020
 aatatattat gttaactcta tttacaac 4048

<210> 1563

<211> 4266

<212> DNA

<213> Homo sapiens

<400> 1563

attttggccc cttatccagc atggacctca aggacaattc ttttagcaat gcatttgctg 60
 cttctcgaga atcgtttgct tccttgccag accccagttc tgtatattct ttggagtgtt 120
 accacccaaa gtgtggtcca tggaccagaa ctgttgggat cacctgggag cttgttaaga 180
 agtgcagaac ctcaggttcc accccaaacc tgggattcag accccctgaa tcagatttgc 240
 attttcataa aggccccagg tgacttgtgc acacagcaga gtctgagaag ccctgcctcc 300
 gagttgactt ccttactcc aagaggacca aacattgctg aagaaactcg tggattccag 360
 cataaagttg ccctggattt acaacctatg gagtacataa gagatgtctc tgctttactt 420
 tggggctaaa taagcaaagg gggaaaaaaa gtaattttac ctggtttatg cgaataattg 480
 cctcaatcct gagaactatg acatcctttc tccaaaagaa tgcaaaactc ttcagactga 540
 catttgaaga caggggccta acaattaggt gtccaggatga gggcaaaagg gacacctgtc 600
 tcagggcctt gtgagcactc ctttctgtgc acgagcaaga ggagagcagg aaggggtttc 660

ccgggaagaa gcctggggac ttaagactga ttgtaaatga ggcagtggga cccaggaggc 720
tttctcagtg tcttccagcc gtaatggatg gtgatgacac acagtttaaa ctgggcacag 780
aatggaggaa gtgcagagga tgaatacaag acgcattttt tttctaagac tatacttctt 840
aaagctttaa aaataaattt atttaagat acatttccat ttttggacag aggaagggac 900
aaggatatga ggtttaattg tgatatatgc aaataatctg aaaacctaata tgtatttagt 960
actgttaatt tcttcaagct actgagtaga agagaagtag gccagtgatg gctttgctgc 1020
ctgttccttt ccctgtgaac agcctccaca ggccatgcta atgagtaaca taaagaaaga 1080
tgagacctgg gaaagcaaag aacatggaca atgcagagat gatgacattg cttttgaatt 1140
tgtaaaaact ggttacaaaa tatTTTTTtg aatacatgaa aaatcatggg tgccaacaag 1200
acttcaaata tcaagatctg tataagaaca tttctagttt atggaaattt gtcattaaat 1260
ttatttcata attgatagtc tataaaaaatg aaaaggagct ccatgacaat acccctggcc 1320
agctgagtga cagctatgga cggcctccag cccgtggagg ccagccctgc atctttgcac 1380
acttccagac atctttgcac acttccagac aggctgtga cacacctcag cactagacct 1440
tccgaatgtc agtggattcc ttgtggtaat aaggccagac atggttataa agggatgggtg 1500
atgtaaacct ttagggaaaa aaagaatcat ttttatctag ggggctggct gactggaact 1560
ttaaaaatcc ttgctaattc aaaatatcct tgcccttgac tttgaacagc ttgaggggagc 1620
cttaccatcg gtagtcaacg ggtctgcttt cccctcggga tcaactcttc caggaccacc 1680
aaaaataact ttggctgggt aaggattaga agcaatacat tgtcactcta atgtaataat 1740
ttaagagact cttggatacg ttcacgattt tcttctatac tataaaatga gcttactgc 1800
acaccttcat gacttctgag aaatgttttt accatcagca atgccactaa cgggtgttgct 1860
gtctgtgtct ggtttactg gggctgcaaa ggctgctgga aagtctggcc cataacctgc 1920
atctgtccct gtctcctgt ccgctgtcct atgttggtgt ttctgaggct tgttgccatt 1980
tatagctctt tgtcttcatt ccatgttgat tcaaactgta ctggcctctc ttttttgctg 2040
tcgtccgtgg aaataatggg gtggcagcca tgcagcatga acgggggggct gcagagtgcc 2100
ctccagctgc ctccgcccgc tgccttccat gctgagttag ctcgagctct atggcagggtg 2160
ctaatacatg atctgtcttc acatctccag gtggacatag gctgcactta tctgggacct 2220
catcttgcta tttcttgctt gtcttgtgtt tataatcttg ctatttcttg cctgtcttgt 2280
gtttataatt gttgctaatt aaactaatca gctgggtgaa attatcaggt taacatttat 2340
gtattaacag tggtttgggc aaccctctcc attcgttgag ccctgtagtt gattatggag 2400

atcagcatat tcctgcctcc aagaggtggt tgtttgtttg tttgtttttt cttgtttttt 2460
gtttgtttgt ttgttttggt tttttgagac ggactcttgc tctgtcacc aggctggaat 2520
acaatggcat gatctctgct cactgcaacc tccgcctcct gggttcaagc aattctcctt 2580
cctcagcctc ccgagtagct gggaccacag gcgcatacca ctataccagg ctaatttttg 2640
tatttttttag tagagactgg gttttaccat gttggccagg ctggtcttga aatactgacc 2700
tcagatgatc cgcccatctc agcctcccaa agtgctggga ttacaggcgt gcccggcctg 2760
cctgcaggag ttctttgggc ccacagtcta aggcaaacac ataccctggg cctgagagac 2820
agcagtcaaa caccttacag gatacagccc gcagcctcca gtgctttcca ggctcctgca 2880
gagtctgcc atcgggcatg gcttcgtgat ggcttggtta agtgtgagga gagggtttg 2940
gggctggaat gaaaggccgt gaatctggaa acacactgga accgatcaac gctatcagcc 3000
ctcatggctg ctgaagggcg ttggttgctc ctgggcaccg ctgcttcagt ttctgcagtg 3060
gctctttcag ctgttgtaat tctgtgccta ggctgttgac aacttttgct gaggttgaca 3120
gaataagact gtgggcatg ctgcttgctt cactctctgg gtgtgatgga tcggtgaggg 3180
tgcagttgct atgattgtaa ttggctcatc catcatggct gttacattt ctggacaaa 3240
caaaaatgac ttcagctact tccagattct gctgatacat tacacaggat gatctaaaag 3300
gctacagttc tgaagatact catctttctt gtaatctggg ggcatctggt caatagtatt 3360
gcctctgtgc tgtattgtgt ctagaacatt caaggacatt tgatacttct catactttaa 3420
ttgcgtgctc tcccagttgc agcacctctt gaggttctta tgtgttgag ccgatgggca 3480
tttgcacaga gcagcagtca tgacagcggt ttcagggcag ctatttctcc ttttccccct 3540
tttctctcc cccggcttcc cattctctc ctcctcttc ctcttctgt cccctctcc 3600
tcctctttgt tctctcccc ctgctcttct tcctctctcc ttttctctt tctgtgtcta 3660
tactagatta ttttcaatca gtcacatgtt tttctttatt ttgaatgta caaaatattt 3720
ctctattgta aacggtgtgc caggaaaaac atgagatgtg tatttgtatt ttttatgcac 3780
ataattactt aatccaatgc ctctccactt aattgggcct gatgatttt atctcgacat 3840
ctgcaatact gatgatatac tggaatctct accaatttat ttttggtggt aagaaagcag 3900
tcagagaacg ttttgctggt tatttcattc cgtgtgagtt cccaaccaag actgtcagcc 3960
cagtgtggtt cagccatata taacctatag aggccataga agcagttcag cttaggctgg 4020
aggccagcag gctgagtgtg cgagctgacc cgatgggtcat ttgttagggt tgggggggtga 4080
actggctaac ttattaacta gcttatcata ttaataaaaa ctctttaata caaatccttg 4140

tcctgacact ctgtagcttt aataatccta ttaccaatct ggtaataaat gtgaattctg 4200
acacattgtt gatgctactg gtttttagtaa cataatgaac atcataataa agaattattca 4260
agagtc 4266

<210> 1564

<211> 3348

<212> DNA

<213> Homo sapiens

<400> 1564

ctgcccgtg gactgatgcg cgagggaggc tgctagacag gctggctttg cggcagtgtg 60
atggccgcgc agcaccacct gacccccacg gctccccaac cccgccattc ctttcattca 120
gcgctcccgg ggaagccgag gcgggcaagt ggcgtagcga tggagggcgc acccaggggc 180
agcgacgctc cctcgctctg gctcccagcc ctggtggtgg gtgcaggagt gagggtagcc 240
cagggtcgca ccctgctccc aacctcggct cgccccacc ctccacggtc gtccgcagct 300
cgaggcagcc tgcattttctg ccagtatcct gtccccctgc ccggtccttc gccctcctcc 360
cactttcatt gtgtgtctcc tctctggctc tgagggttct cctccctccc ttctctctct 420
gggtgtctcc gtgtctatct ccacatctcc atctccattt ctttctctgc ctgtctctgt 480
ctctagctgt ctctgtccct cagtctctgc tcagggtctcc gctcgcctct tgctcatttt 540
cgttcctctc tttgtctgtc tgactctctc ttgtctcccc cccttcagtt accccaacc 600
ccccgcacac acacacacct cacagccctg ttacgacat cccctgggct ggcaggtggg 660
cggggctgca gcagagcggg ggtgagagag ggagacgcag cctccccccc agctgttaac 720
cttcacgctt caggcctctg cggatggcag aggaggggga aagcccagct gccagcttgg 780
cggaggtgac cgggcggggg ctgggggctg tccctccctc tgggctcgtc tctggggaga 840
tctggggccg gaaggaatgt ggtggagggc gccttcggct gaggaaggct gttgccggat 900
gggtggcctc ctgaaggctt gtgctggcga ggcgggtgcc caaagggggc tctgagcggt 960
gtcggccctg cccgcagccc ggccggacgt gggggccggc gtgagaatcc cgcccatctg 1020
tgagccggcc tcacgccgtc agaccaatt tatctcgccg ccaaagtctt acagccatct 1080

gctcgagtgg aacggcttcc agcgcctggcc ccaccggggcc ccccagccag cgcggggatg 1140
ttttccaata cgacagcatc gccccgcaa agcaaggagg ggggtgtaggg ggaggcggca 1200
gagcgcggtg cgcggggctg gcaggcagcc ctctcccgcg agcgagccga ccctgaattt 1260
taagcgattg atcaggaagc tcaggccgtt cccatcactt tgagcagcca aatgcgacgg 1320
cgcagggatt tcaaggggcc tttgcggagg cggtaatgag gtcaccgtca ctgcgccagc 1380
ccgcggggcgg gagggggcga aggtctgcgg acacgtgtga acacagcctg tgaaccgagc 1440
cacatctgta ttcacgtgac ccccggggcc ccagcactga cccaggaaaa ctcggcattt 1500
ggatctgagc tgattcacac tccccgccc ccacccacc taccagcca gacacggttc 1560
gagaggctga gctagaacct agccctgcc catccatgat tccatgatca cctcagacag 1620
cttcagcaca agagcccaa ctctcttctc ctccccgcta tgtgcctaaa atacacatat 1680
ttgggcacct gccattgca cttctgaaca agcctgtgga gacagatgta ccctaggccc 1740
ccggtaatca cacagtgca cacattcaa ttacacacct gaccgcaatg ctcgtgcatt 1800
agtacactcc caaccaccac cactaccacc ccaaacatg cacacaggta ctccatcact 1860
ttcaagccag caccagcaa cacacgagcc ccaaactcc cttccccgg gcgaactcat 1920
gtgcacactc attccaaga ccccgagctt gctgccatgt ccgcgcgggt gggcgcctcc 1980
actgcccgcc aggcagcgcg ggtgcagacc tcgaagagaa caaaggccgg gcaggtggga 2040
gggaggggcg ctgagcccc ggcccgtcct cctaggcaat gctcgtctgt ctcggctccg 2100
cggccaccgc atcgagcggc tctgattgcc gagtaaatca ccgcgatgat ctgaataatt 2160
atcgtctcct gaaaaggga aaaacagaga ataaataaag agagaaggga gcagtcacct 2220
gatttctagg agccctgggg tatgttgggg ggggggtgaa tacatagggg tgggtgtcag 2280
tggccccctg cggatcctcg ggacttctgt tgggatggag tgcaggtggg atgggcctca 2340
gggcagacag tccttcctta aaggtggcag ttagcatcca gtctccccct tcgtctcccc 2400
agggtaagtc aggccccctg gagcacccaa ccgaccccag ctggcttctc tgcttcttac 2460
acactcaggc ccactgacc tgtagggcac cctcctgttc cagggtttg ctcagtcggt 2520
tccccctag catgctctct acccaccact ctggctggct tcaactctcc atctctgaag 2580
ttcagcccca ggttacttcc tctgagaact tcttctgac tgcccagccc tccaggatcc 2640
ttctctccca gagttccagt gtctgattgc attttctctg actgatttgg gtgtgttgtc 2700
ctgatcttct cagctggatg gcagctttgg tggaagcagc tatgttttaa acaaagcagt 2760
aatagtagca acagcagcag ccactgcccc actctgagca gctaggatgt gctggccctg 2820

tgccaaaaca tcatctcacc atggatcctc cccagaatcc tgtgtggaaa gtaatgtctc 2880
catttaaata atgggggaaac tgaggcgtac caagagtga gcttggattc ctttcctcag 2940
ggatgaagat gctggtcac tacggtatcc tttctgcagt tgtcccctga tcccacatat 3000
tggaggagtt gcttctcttc cagtgtctggg caccaagaca caattacctc aactggctgg 3060
gcacagtggc tcatgcctgt agtcctaacg ctttgggagg ccgaggtggg cagattgctt 3120
gagcctagga gtttgagacc agcttgggca acatgacaga acaccatctc taaaaacaa 3180
acaaacaaat gaaaaacacc aaaaattagc tggatatggtg gtgtgagcat atggttccag 3240
caacttggga ggctgaggag gaaggatggt ttgaaccgag gaggttgagg cagtgagccg 3300
tgattgtgcc actatactca agcctgggca acagatcgag accgtctt 3348

<210> 1565

<211> 2845

<212> DNA

<213> Homo sapiens

<400> 1565

agtcgttggg ttccagggtc cttcacgttc cattcccagg ccggtctgag ctccggggcc 60
gtggtccgc tgcctcctcc ggctcgtcgtg cggaagctgc gacgcaggca gaccatggca 120
gagttctccc agaaacgggg gaagcggcgt agcgcgaag ggctgggcag catggtggac 180
ttcctcctgg ccaatgcccg cctggtgctg ggctggggcg gggctgctgt gctgggcatt 240
gccaccctgg ccgtgaagcg gttcattgac agggccacta gcccgcggga tgaggatgac 300
accaaggcag acagctggaa ggaactgagc ctgctcaagg ccacaccaca cctgcagccc 360
cggcctccac ctgctgccct tagccagcca gtgttgccct tggccccctc gtcgtctgcc 420
ccaggagagg ctgctggcct tcgagcggga ccgtgtgacc atcccagcag cccagggtggc 480
tttggccaaa cagctggctg gcgacatcgc cctggagctg caggcctact ttcggagcaa 540
gttcccggaa ctgccctttg gggcattcgt gcctgggggg ccgctctacg acgggctgca 600
ggcgggggct gcggaccatg tgcgtctcct ggtgccactg gtgctggagc cgggcctgtg 660
gagcctggtg ccgggcgtgg aactgtggc gagggaccct cgctgctggg ccgtgcgcag 720

gacgcagctt gagttctgcc cccgtgggag cagcccctgg gaccgcttcc tggtcggggg 780
ctacctctcc tcccgcgtcc tgctggagct actccgcaag gcgctggctg cctctgtcaa 840
ctggccggcc attggcagcc ttctcgggtg cctgatccgg cccagcatgg cctcggagga 900
gctgctgctc gaggtgcagc acgaacgcct ggagctcact gtggctgtgc ttgtggcagt 960
ccctggggtc gatgctgacg accgcctcct cttggcctgg cccctggagg ggctggcggg 1020
gaacctctgg ctgcaggacc tgtatccagt ggaggctgct aggctgcgag ccctggacga 1080
ccatgacgct gggactcgcc ggcggctgct gctgctgctg tgtgctgtct gccgtggttg 1140
ctcggctctg gggcagctag gccgggggtca cctgaccag gtggtcctgc gtctggggga 1200
ggacaacgtg gattggacgg aggaggcctt gggtagcgc ttctgcaag ccctggagct 1260
gctcatcggc agcctggagc aggccagcct gccctgccac ttcaaccca gcgtgaacct 1320
cttcagcagc ttgcgtgagg aggagattga cgacattggc tatgcgctat acagtggcct 1380
acaggagccc gaggggctgc tctaggtggg tggaaacggg tggttgcat gttttctaata 1440
gctggggagc tgcaccacc tcccttcag ggatttgaat agtggttttt ctctagcttt 1500
ttgccagaac aaaggagggt acattactta aaccagggc atcaggatgt gcttgggcta 1560
tgggtggcat aaaccctgag cccagagagc ttgggtcact gtcacctgag tgcagctggg 1620
ctgcctcagg cagcttggag tgccagccat tcctgcaagc accgtttcag ctcttggggc 1680
caaccccagg acctttggct ctgtccatca ccagcaacca atccaccaac agaattgtgt 1740
ttctgccatc ctgggcagaa gctgaaggcc agcttcacat ttctgctgag agaaggtagc 1800
ttaacgcctt ttccggccct agctccaggc gttttgaggc gtctggtgcc tgatggtagg 1860
tatggtgtgt ttgttctgtc ccccaggggc tggagtcacc tggtgcccct gaaggacaga 1920
tttttggctg ttaaaggatg gcattttcct gctgtcttct gtgcgttttag ttttcttgct 1980
gagcgggagc tcagtatgac ttgccacca cctgatacct cagggaagg ccctttttcc 2040
ctccagccag gtgagtgttt tcttcaggca gctgagggtc ctgggggagc tgaggctctg 2100
tgctgcacc ccagcccaca gctggggcat ctcactggag ctgttcagg cccactgga 2160
gagcagagga cctgatcccc cactagagag gtccggtgtg cacagccggc ctcccagtgt 2220
gccaaaatga actgctctca gctgatggct gtattctgac tttgaagcct gttaagaggt 2280
agcaaggggg ctagaggagg gagattccac ctcccctccc aagtaccct cctcctgcct 2340
ctggtatcct tccttttgaa acgaagctca gcttcgaaga tgtgaacaag aataaaagga 2400
aaaaattcta atgtatatat aactcaggct ggataaggga gtcttggtgc tttcatacgc 2460

agctgttgag ggttttctgt aagtcctgtg gcttgtcctg gcactttggc aagagtgctt 2520
 gaggtcaatt ggaggtggta gagtttactt taaaaagtag catcttggcc ggggtgtggtg 2580
 gctcgcacat gtaatcccag cacatcggga ggccgaggcg ggcggatcac gaggtcaaga 2640
 gatcgagacc atcctgacca acatgatgaa accccaactc tactaaaaag acaaaaatta 2700
 gctgggcgtg gtggcacgca cctatagtcc cagctactcg ggaggccgag gcaggagaat 2760
 tgcttgaacc cgggaggtag aggttgcaat gagctgaaat tgcaccactg cactccagac 2820
 tggcgacaga gcaagactct gtctc 2845

<210> 1566

<211> 2721

<212> DNA

<213> Homo sapiens

<400> 1566

acaacgcatg ctgaaaaaac aaaaaggag aataggggac caattaccac ttcaaacaaa 60
 attacattta gccttgttta ctttaaattg tttgactcct ggtacggatg gcaagacccc 120
 agcagaacga cactggcaac tgctagagga aaagaggcaa gtttatccaa aagtgttatg 180
 gaaatcccca gaagaaggac aatggaaagg tccggtggat ttgctgacgt ggggacgagg 240
 gtatgcttgt gtttttacag gagatggaca aaccgtgtgg gtgccctcca ggtgtgtgtg 300
 accatggaac gggagaccgg agggatccat ggtattcaac cgtgggcctg ttacctccag 360
 tacgagccat gagccagcgg aatctgaatg caaagacaga acaagggccg accggagtca 420
 caatgacatc caacccata acatggggac agatcaagaa aacgacacaa gaagctgaga 480
 aactactgga gcgccagggt caggcaaaaa cccctgactc catgttcttg gccatgctag 540
 ctgtagtgtc ctgtgcggta tgtttccct gtgtagaggc aaaaacatat tgggcatatg 600
 ttctaacc actggtagta cgactggtac tctggagcga cactcctcct gagatatatt 660
 atgatcaggg agcgtgggca ccaggacccc taactccgtc tgacacagag caatagcatc 720
 aattacaccg gccattgga aggactccct ttatgtatca ccatggatac gtcactcaac 780
 tgcagctgtc ttgcagtcca atctcaggca tggttaagtc accatggaaa aattatgtat 840

ttattaggcc tcagctttat taatgttact ggcgtgttca ccaatcactc ctagcccat 900
cactcaaatt gtatggatta tatggaatgg gctccctttg atattttctca cccccctcct 960
tggacccagt gtcttggccc cttggccaga caacagtcta tgttaatggg aaacattgac 1020
tgggggtcccc gtggccattt agaggggaga gatgaaaatc agacctcttg gcacaaactt 1080
cactggcact ggtggtggac cttcaacacc tcttcatcac atcacactgg gattcagtcc 1140
cccagttggc tgcacaaactt gcttgggtata ggacaggctt taacccgccc ttacctcagt 1200
gacgtcatct aggaacaga ggcccaattc aggaatcgat atggaaggca acactcccat 1260
ttatgaataa cagcatctgg gtcagaacat tatccaacaa tagtaatatt actcaacaca 1320
gttttaatat cacctttgta aaaaatatta ccaactcaatt tacggtttgt gggttttttg 1380
ttgttgttgt taactgtttg agatggagtc tcgctctgtc gccaggctg gagtgcagtg 1440
gcgcagtcctc gggctgctgc aacctttgcc tcccgggttc aagcaattgt ctgcctcagc 1500
ctcccgagta gctgggattg caggcgcccg ccaccgtgcc aggctatattt ttgttttttg 1560
tatttttgat ggagacggga ttccaccttc ttggccaggc tgctcttgaa ttcctgacct 1620
cgtgatccgc ccgccttggc ttcccagagt gctgggattg cgggcgtgag ccaccatgcc 1680
cggccagttt gtgtttttaa tccctatgtt tttctagcat ctaagaagga ccaactccac 1740
gtaaacaatca cccagttgac ttgtgactct tgtcaactgt atcactgcct caatcatagc 1800
acaatacaaa cacacaacat atccactcta ataattctgg gtcgtatccc tggattatgg 1860
atccctgtca atttgtgcaa accttgggct gccaccctg ctttacattt tgtaaaactc 1920
cttcttacc agctcactca tcgtgcacgt aaagccttaa acatagtaat ttttactgta 1980
atctccttag tcacactaat aacctcggtt gtagtgtcct cagtagcact acatagtctt 2040
attcaaacag cccaatatgt agaaaattgg acatgtacag ccaaccaggc atggatgctt 2100
caaaataaaa ttaataccga attacaaaca aaggtagcaa tgttaaaggc tactgttctg 2160
tggctgggaa agcaggtaca aagtttgcaa ttgtagcagc aattgcactg tcatttcaat 2220
catattcata tttgtgtgac caatttggaa tagaaccaaa gtgaatatcc atggaacctt 2280
gtaaaagctc atttgcaggg agcttttaca tccaatatta cttttgatat cagtaactta 2340
cagagtaaaa ttcttaactt gaataagcaa actcaaaaat aacagccctt tttagaagct 2400
taaacagaat tccagcaggg cttagaaagc ctcaaccctg gccgggtgcg gtggctcacg 2460
cctgtagtcc cagcactttg ggaggccgag gcgggcggat cacgaggtca gaagatcgag 2520
accatcctgg ctaaggcggt gagacccgt ctctactaaa aatacaaaaa aattagctgg 2580

gtgtggtggc gggcgctgt ggtcccagct aatcgggagg ctgaggtggg agaatgacgt 2640
gaacccggga ggcagagctt gcggtgagcc gagatggcgc cactgcactc cagcctgggt 2700
gacagagcga gactccatct c 2721

<210> 1567

<211> 2962

<212> DNA

<213> Homo sapiens

<400> 1567

cgtatgatct gaaggcctgc aagactgtgg gatgtggtca gagttgattc ctgtgaagcc 60
gtgcagcatg tgggttcagc acttgggctt tgttatcaga aaaacttaag gccaaatcct 120
agctgctcta ttcaccagct gtatcttcaa gtgtcagcct tgccttttct gagcctgtta 180
gctcatctct caagaaggaa tggcactgta gtacctccct tgcctgggtg gtgtccttaa 240
atgggtcaca taacctctcc tcttttctca tctctcagta ggtgggtggc tctgtccctt 300
tcacctctca gaaatgggca gccatgtcag ggggggtggg cagggcagtg agaatgtca 360
tgtatggatc tttggatgtt ccctgtgagt gtaaactctt ggtctgtttc tccctcgat 420
gctataagga gaagctaagg caagcatgca tggcctttgg cctgtgtgaa attagaaagt 480
aaaaagatct caggccatgc ttcttcccca gttgccagga gagacttcag gattgttgat 540
ggtagtacag gaatccagtc tcagctccat gttcttagtg ctgctgcagg agtgatttga 600
cttttctttg ccccagagcc tactgcttcc atctctcaca ttctactccc accgatctgc 660
tttccctaga gtctgtcta tctccccca tacttacctc aggactgtca tttatcctca 720
gacatccctc tgctcccaca agccctgggt acaagtcatt gagccgttgg gattgggttc 780
acttcagctg cctctgacag atttccaggg agggactgtc cagggatcgg tttcttgagg 840
gcagatttgg agcaagatta gtaggcatgg atggtcttag tatttaggtg tatgggaatg 900
tgagggctct tctcatgtaa gtctgtgacc ctagagagg gccctccagg gaccatttgg 960
gggaacacta tgtgagtacc tgaactttga gtccagagtc catgggcctc ttctattaaa 1020
ggcccttggg gatgtcacac agcctcatgt ggagtcatgc tttgataagc ctgagttgtg 1080

cgcaacttggt tcccttcttg acttgtaatt tcagggttaag gaaagaagag gggctttcat 1140
ctgtgatcag agcctacaga ggccaagaga ggaatgggga atagaatcag aacacagatc 1200
tttctggaaa agccagcacc ctttcagctg tttaacctgga aaccacagtg actgaagggtg 1260
tagctaaagc cctagagggt tccagtgggg aaccctggct tcaaccagc agacagtggg 1320
ttcttccagg gcaatagctt cctcctaaga tgcgtcatgt ctaggcctca aggctggggc 1380
cttttttttc ttttcttttt tttttttttt agacacggtc tcgctctgtt gccaggtg 1440
gagtgcagtg gtgcagtctg gctcactgtg acctctgcct cccgggatca agtgattctc 1500
ctgccttcgg cctcccgggt ggctgggatt acaggcatat gccaccatgt ccagtgaatt 1560
tttatatttt cagtagagac agggttttgc catgttggcc aggctggtct cgaactcctg 1620
acctgcctcg gcctcccaa gtgctgggat tacagccaag gctgaggact ttcaacagct 1680
gcagcgtgct gccagatttc aggggcctcc ttactgttag gtataagact tcatgcctca 1740
gcttgctctt cctgaggagt ggaagcagag agctgctggg gcaaattccc tctgcttag 1800
ctaccctcct tcccagtgat cgcaaagata gttattttca caacaggtca ggtcaggcca 1860
ggcacagtig ctcacgcctg tggctccagt actgtgggac gccaaggcag gcggatcagt 1920
tgagtccagg agtttgaggc cagcctgggc aacatggtaa aaccctatca tgggtggcatg 1980
tgcctgtggt cccagctact tgaggggctg aggtgggagg atggcttgag gctacagtga 2040
gcgctgattg tgtcactgca ttccagcctg ggcaatagag tgagacctg tctcaagaaa 2100
aaaaaaaaa aaggttagt tcccagtaaa agctcctgct ctaggtggga acagtagcct 2160
gagggccttag aggaatggtt taaggga aaa cagggccaga tatttggggc ctgaaccaca 2220
aggatagcat ggccgtagga cagacactgg ccttgtagag tcagaagaag cacaaggaca 2280
ggtggtatgg agggaggatg aggatactgg gtcctgtccc agggtaatgt ctttgttctt 2340
tctcttgacc tccccatagg ctgacagccc tgagtgatcg agagactcgg ctgcaggagg 2400
tgcgctcagc cttcttggt gcgtacagca gcacagtggg gcttcgggca gtagcccca 2460
gtccttccgg tgccatcggg ggcctgctgg agcaatttgc ccgtggtgtt ggactccgga 2520
gcatcagcag caatgccttg tgaagaagcc agcccatgac attttcctgc tctctctca 2580
gctgagccct tagcagagaa tcaaagccat gcctggccga aggggtactt ccaggtcagg 2640
ggaaatttca gtccccatc tccatcatga acatggcagc cccaaagctg agcaaggcca 2700
aagacagggt tttccaacc ccagcctctt gactggtgac caccaccct tcttgtcact 2760
gtctcccacc caccatct ttgctgggat tccatcaac tctcagaact gtgtggggtt 2820

tccctggggc cttgtggaag ccatgacttc acaaagaccc tacctgtcag ttcttgtttc 2880
tggggaggag ggatcacctg cactgagaat gaggcagttt gacacagatc aaaaaataaa 2940
atcaaagtct ttttgaatag cc 2962

<210> 1568

<211> 1639

<212> DNA

<213> Homo sapiens

<400> 1568

agctctggga gaggagccca gcactagaag tcggcggtgt ttctattcgg tgatcagcac 60
tgaacacaga ggactacca tggagtttgg gctgagctgg gttttcctcg ttgctctttt 120
aagaggtgtc gagtgtcagg gactactgga ggagtctggg ggagacgtgg tccagcctgg 180
gagggtccctg agactctcct gtgcagcgtc tggattcccc ttcggaatct atgccatgca 240
ctgggtccgc caggctccag gcaaggcgct ggagtgggtg gcagctatat ggcataatgg 300
aagtaacgaa tactatgcag actccgtgaa gggccgattc accatctcca gagacaattc 360
caagagcaca ctctatctgc aaatgaacag cctgagaggc gatgacacgg ctgtatatta 420
ctgtgcgagg gacccaaaat ttggatattg tagtagcacc agttgcctta cgaattactt 480
tgactcctgg ggccagggaa ccctggtcac cgtctcctcg gcctccacca agggcccatc 540
ggtcttcccc ctggcacctt cctccaagag cacctctggg ggcacagcgg ccctgggctg 600
cctggtcaag gactacttcc ccgaaccggt gacgggtgtc tggaaactcag gcgccctgac 660
cagcggcgtg cacaccttcc cggctgtcct acagtcctca ggactctact ccctcagcag 720
cgtggtgacc gtgccctcca gcagcttggg caccagacc tacatctgca acgtgaatca 780
caagcccagc aacaccaagg tggacaagaa agttgagccc aaatcttgtg aaaaaactca 840
cacatgcca ccgtgcccag cacctgaact cctgggggga ccgtcagtct tcctcttccc 900
cccaaaaccc aaggacaccc tcatgatctc ccggaccctt gaggtcacat gcgtgggtggt 960
ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg tacgtggacg gcgtggaggt 1020
gcataatgcc aagacaaagc cgcgggagga gcagtacaac agcacgtacc gtgtgggtcag 1080

cgctctcacc gtcctgcacc aggactggct gaatggcaag gagtacaagt gcaaggtctc 1140
 caacaaagcc ctcccagccc ccatcgagaa aaccatctcc aaagccaaag ggcagccccc 1200
 agaaccacag gtgtacaccc tgcccccatc ccgggatgag ctgaccaaga accaggtcag 1260
 cctgacctgc ctggtcaaag gcttctatcc cagcgacatc gccgtggagt gggagagcaa 1320
 tgggcagccg gagaacaact acaagaccac gcctcccgtg ctggactccg acggctcctt 1380
 cttcctctac agcaagctca ccgtggacaa gagcaggtgg cagcagggga acgtcttctc 1440
 atgctccgtg atgcatgagg ctctgcacaa ccactacacg cagaagagcc tctccctgtc 1500
 tccgggtaaa tgagtgcgac ggccggcaag ccccggtccc ccgggtcttc gcggtcgcac 1560
 gaggatgctt ggacgtacc ccgtgtacat acttcccggg cgcccagcat ggaaataaag 1620
 caccagcgc tgccctggg 1639

<210> 1569

<211> 3862

<212> DNA

<213> Homo sapiens

<400> 1569

cacactacgg agtcgatggt tcagtttcat gaacccttgg accaaggaag tagaatatat 60
 tgtctcaact aacactgttg ttttagccaa cgctctggaa ggcggggacc caaccttccc 120
 acagctcaca gcatcccccc acagcatgga cagcatgctg ccctctggag aaggtggccc 180
 aaagaggacc caccctactg ttccagggat tccaggggga acccggtg gggcaggaaa 240
 aataggccga atgattgctg aggaaatcat ggaaatccac aggcaagtaa caccttctag 300
 ttcctctgtt aaaccagtgg ttctcaacct agggaaattt attccccag gcaatatttt 360
 gcaatgtcag gagacatttt tggctttcac aactgggtgg gaggttgcta cttaaaccatc 420
 ctgtggatag agaccaggga tgctgcttgt taaacatcct acagtaaaca ggacagttcc 480
 ctctcccca cccaacaaag aattatccaa tccaaaatgt tagtagtgcc tagattaaga 540
 aatcctgcct taaataaaga agctaaacca aaatagccca gcgctaaaga gaattcttga 600
 gaagacttaa ctttcttatg gctcaaggag cttctcagtg cggatagatg tacctttact 660

ttacaggaat gcaggagtag agctgtgaac tatcagagtg atctggacct taacaaaaca 720
ttcacttttt ttcaatcaaa gagctgcccc ggattagtag tagaaaccaa gcagatcagc 780
tagttattac tagctgtctt gggagagact tcctttccat atgaaagaga aggagcttag 840
aagcagtcca cctgggtctg agtcctgggc ctgtctctct acctggctat gctgagactt 900
acttaacctc ttgctctctg ttgatttaaa ccataaaaag aaagcactat ttcccaagaa 960
ttgtgttagg attgtgaggg cactcaggaa agttccagga acacagcctg acatatagtg 1020
agtgcctaaa aattaattaa atctgtcttt aagagcagtc gagagggaag cagttatcat 1080
aagtctgtcc aaatttgggg aatagagaag gtggtaacca gattcttcag aacgaaactt 1140
aatgtaacat aagaaaagga agaaaacact gctgccgctg gattctctca ggagaattag 1200
aggctggcct gttttccaat tggccataaa ggggctgtta tccccctata ggtaacacag 1260
ctcttttcca accccacagg attagtgggt gtgacttctg catcaggaag gagacatgag 1320
ggtagtgtgc agtgtaatca ggttcaaaac ctatactttg catttgcata ccctatatatt 1380
tgcttgagac catccaagaa cagtatcaaa cagtccttga cctcaagaat tttaaaatct 1440
tttataagtc tattttcttt atgataacag gaaaaaggga ggggtgcatgg gccaaagcaa 1500
gcaaaggagg aaagatttga acttggcctt agccagggtt tgcaataaga gtggatgttc 1560
cctctagaaa agccagggtt attcttgagt gggcatgtga gtggcaaatt cagggtcaag 1620
aaacaagcta cctaactggg caggctttgt gtaggaagga gacacagagc tatgataggc 1680
gattaagaaa cacaagaaat gatactgtgc agtttgggaag aaacctgtaa gacccattt 1740
gttgtaggat gctgaacaag catccaaagt cttgtgttac gctttgtgga agttgcattg 1800
gaataggag agatgaaggt gggcatgttt gacaactcag gaatgaggcc ttatcctaca 1860
gagatgacac tgccaaaaga gaaatcaatc atctaaggtc tagcgtttga agatgaaatc 1920
aggaatgatg aaacagcaat tccaagatga gaaacctggg aaaatagtgg tttcatagac 1980
ataagtagag aaaggtgggg gacactcagc aatttttccg taagcaatta gcagccgttt 2040
gtgcatgctg agaatacatg atatgtagtt gtaaactgcc gttaagaagc ttataatcca 2100
gaaagaaaac ttgttctc ataaatctag agaactaggc agtacaagaa ccaaaagact 2160
tctgggtggt ggaggagtgg tctctgggtc acccaaaagc tacattcatc catgtaggag 2220
ctgagagtcc tgtggttaca caactgccat cacactctcc ctaaactgta gctgcaatgc 2280
caagtgatgg attctttcct gaggtccttc agcctgacaa gtatttaggt ggatttacag 2340
ttctaagtct tcccttctat aaatcttctg agagatatgc tagataagaa aggcttgac 2400

ccatttttca tcaaccactg ccttcgaagg ctgcttttcc tgtcactact actaggctac 2460
 ctttttagacc ctggtgccgt ccatgtccta agagtattca ctagctaaac agtgtttgtg 2520
 gagaagggga caaattgttt tctgtggatc aaagatggag gttgatctta gaagttctcc 2580
 tccaattcac ctggattctg tgaggaaata aaactggcca cttacttgaa attcaccaac 2640
 tgaatgcaaa ctccaatcca agggctttgt cagtgaatg cttgactcta gggactgcat 2700
 tctagatcag gtgcctgtag aacaaatcca gcttgtcatc tgtttttgta aataaagttt 2760
 tattggaaca cagccacacc gattcgtatc tgtggctgct ttcaagctgc agaggcagag 2820
 ttgagcattt gtgacaagac accatatggc ctagagagcc tactatctgg ccccttacag 2880
 aaaaagcttg ccaaacccta atctagatct tcatccctt tctcaccttt accccttaac 2940
 aaagcacata cactccactg aaaaaagaaa aggcagtgtg attctctttt ctgacaggat 3000
 aagaggggtca tcgccttcta gctgtggctc cagcccattg aacatcacga gtacgcctcc 3060
 ccctgatgcc tcttctccag gaggcaagaa gattttaaat ggagggactc cagacattcc 3120
 ttccagtggc ctactatcag gccaggetca ggagaacca ggttatccat attctgatag 3180
 ttcttctatt ctgggtgaga acccccacat aggtatagac atgattgaca acgaccaagg 3240
 atcaagtagt ccagtaatg atgaggcagc aatggctgtc atcatgagcc tcttggaagc 3300
 agatgctgga ctgggtggcc ctgttgactt tagtgacttg ccatggccgc tgtaaact 3360
 acatgttgct ttggcaacag ctatagtatc aaagtgcatt actggtggag ttttacagtc 3420
 tgtgaagctt actggataag gagagaatag cttttatgta ctgacttcat aaaagccatc 3480
 tcagagccat tgatacaagt caatcttact atatgtaact tcagacaaag tggaactaag 3540
 cctgctccag tgtttcctca tcattgatta ttgggctagc tgtggatagc ttgcattaat 3600
 tgtatatattt ggattctgtt tgtgttgaat tttttaatca ttgtgcacag aagcatcatt 3660
 ggtagctttt atatgcaaat ggtcatttca gatgtatggg gtttttacac taaaagaag 3720
 tccccatgt ggatatttct tatactaatt gtatcataaa gccgtttatt cttccttgta 3780
 agaatccttt actataaata tgggttaaag tataatgtac tagacagtta aatattttta 3840
 ataaatgttt cccttgttct at 3862

<210> 1570

<211> 3259

<212> DNA

<213> Homo sapiens

<400> 1570

aataattaga	tcaatttata	ttctacaata	gtgcaaaata	ttcagttcat	gtaatttatt	60
ttctgtaaac	cacgtcaatt	aagacaggca	gagaaggaaa	cagtcaggag	catgaggaat	120
tgtcagggtg	ccaatattaa	gacagttgtg	cctagaagga	aaaaaacac	agaatatctg	180
agcctgtcag	tactgcttgc	accctgggac	ctccgcctgt	gtctgcagag	cctgagaaga	240
gagggttgc	acaagccggt	ctctaatttg	tttcccaggc	ccagctgccg	ccaggctcca	300
gggcagaact	gtggtgggtt	caggagactc	caggggcccac	agggtcagtt	ctgggttttg	360
cttttttgtg	cagctcttgc	cccgagcgct	ctccagggtga	catgtcctct	catcccgggg	420
ctcttcagag	aatcgcagga	atgtgttcca	cccgtccaa	aataagaaat	gtgcatgcat	480
ctgccccgcc	tcgcaccaat	attgggtaca	gctttgaagg	ggtcagaaat	tcctcaaac	540
ttattcaaca	ggatactgtg	gtgcagtgag	ttccctacca	ggttacttag	ggctttggtc	600
cactgcgtga	atcctgaagg	ctgagagcga	gccaaaggta	cagtgccctgg	cggaggagca	660
ggatatccag	gaacccggag	ctagcctgag	aaccgcccag	gaccagcg	aggagcaggt	720
atcccaggaa	cccggagcct	gcccagagaac	caccagggag	agcagtcca	tatagctcat	780
ggccggcaac	gagacaggga	gcacaggtgg	aagcagctcg	aaagctgcgg	atcttagcgc	840
tgtcctgagg	ctgcccaggc	aggctgtgtc	ccagccattc	ttcatctct	tgctccctcc	900
cagtttgggc	caggggccagg	gatggaggaa	actgaattcc	aaaattttta	ttgtaaaaaa	960
aattaatttt	cttcttctgc	ataacaaatg	accacaggca	tagtggcttg	aaacgacacc	1020
atttgccgcc	tcgcagtgtc	tttgggtggg	gattcagtag	agcccgggct	gggacctctg	1080
tgtggggact	cacgggccgc	cagcagaatg	ctgttcgtgt	ggccgcagga	cagaggctcc	1140
atgtccttgc	tggctgatgc	tgtggccgct	gccacacctc	aaggcaccaa	gtcccagccc	1200
cgtggcccct	ccaacctggc	agccgacctc	agggtggcag	aagaatcttc	tggtatggag	1260
aacctctttt	taaagatgtc	atttgactcc	atcaggcctg	cccaggtaat	ctgcctgttg	1320
ttaaaagtca	aatattacaa	taacaactgc	caagcctcat	cacaggtgat	ggccccaggt	1380
gtgtgtgaac	atgagcacat	gctggagggg	aggccatgac	actgggcagg	ggccaggggg	1440
agagtcgggg	aaggccctgc	cttcggggagc	tcagccatga	ccccgggcag	gggccagggg	1500

gagagtcggg gaaggccctg ccttcgggag ctcagcccca cctcgttgcc tcagcacagg 1560
cctctgttcc actgcagctg tatctggcac agtgagttga tgaggggctg ccccttccc 1620
ttggggggct tgaggccagg atccttgtaa gggattgaat gaggacacaa aggaaggag 1680
acggacagac agggagcagc ctgccagtgg aagcctcgat ggtcaccccc tccccaggat 1740
ggtcagtgca caccggagat ctcgatggtc acccctccc caggatggtc agtgcacacc 1800
ggagatctcg atggtcacc cctccccagg atggtcagtg cacaccggag atctcgatgg 1860
tcacccccctc cccaggatgg tcagtgcaca ccggagatct cgatggtcac cccctcccca 1920
ggatggtcag tgcacaccgg agatctcgat ggtcaccccc tccccaggat gctcagtgca 1980
caccggagat ctcgatggtc acccctccc caggatgctc agtgcacacc ggagatctcg 2040
atggtcacc cctccccagg atgctcagtg cacaccggag atctcgatgg tcacccccctc 2100
cccaggatgc tcagtgcaca ccggagatct cgatggtcac cccctcccca ggatggtcag 2160
tgcacaccgg agatctcgat ggtcaccccc tccccaggat ggtcagtgca caccggagat 2220
ctcgatggtc acccctcct gtctctgtgg tgagggtggg tgaggaagtc caggaaccac 2280
agtccagctg cagccgaagc cctggaagcc aaagactggg gccagccag aggccacttg 2340
ggcacgaaga agggcagcag cagccggagc taagaatggc ctctagaaag gggccgtgcc 2400
agcctctctc tcaaactggtg tccgtgggga tcagggtggg cccctcctgg atgcccttg 2460
ggggctggtg ggcccagcct tgtatttggg cattaaaggc aaaggaaacg ccagccagtc 2520
aaaccacctc tgccattctt cctcttctgg gagtggctgg ggttgaaggc agtgctcgtg 2580
ttcatggccc ttactacg tctgatttgt cgcagatcca acagcatctg ggatcttct 2640
ctgaaaatcc ctctcattat cgcaaggat tctgcacat tactcagtcc ttaatttaa 2700
catggcatga catttatatc attetaatct ccaccctcac tctgatgaa aagggcgccc 2760
ctggcgttca gctgaaaccc acgcagatga actccataat caagcccctg taaaaatcc 2820
agtggccaat gatgcatttc cccacagaga ccatactag atttaccatc agggagacaa 2880
tggcaccagt ctggactggc ggagcaggag catcatcatc ttagacaagc atcgcccctg 2940
tgagttctac ttgattcaaa actgcctaaa tccagcccca aaacatcagc ctaatggcta 3000
atgtcagtgt gaccttaa atcacaatgaa acctctgacc agagacatgc caaccccgag 3060
ataacctccc ctccgaccag agacactcca gtctgcaat aagactctcc tccacacaga 3120
aacattccta gcctgcaata agctcccctt cccggaactc ttaaataccc ttagtctcca 3180
agagaaaagg ctctgaccg aaatcgggca gaagcccctc tcaggtttat tctccaaaat 3240

aaacctgtct tagactgtt

3259

<210> 1571

<211> 3952

<212> DNA

<213> Homo sapiens

<400> 1571

gagagtggct gcctgagaca gctgccacag gctgctgcag agcgtgcagc ttttgcaagg 60
gactgaattc ccagccagac accccttgga ctcttttttg gaggggtggg gagcagagag 120
aggagggagt tgtcttatct tggaagatcc gagctgggtt tcatctcctt tttgattttg 180
agtagttccc tccacgagaa ctgacttcca ggtgttcacc aagggaacaa aggtggttct 240
cacttgga atgaggaagg atgacagttt ttgagactga ctgttaacgg ctcagaggtg 300
ccctcattc aaaatgcctt ttaaagcatt tgataccttc aaagaaaaaa ttctgaaacc 360
tgggaaggaa ggagtgaaga acgccgtggg agattctttg ggaattttac aaagaaaaat 420
cgatgggaca actgaggaag aagataacat tgagctgaat gaagaaggaa ggccggtgca 480
gacgtccagg ccaagccccc cactctgcga ctgccactgc tgcggcctcc ccaagcgta 540
catcattgct atcatgagtg ggctgggatt ctgcatttcc tttgggatcc ggtgcaatct 600
tggagttgcc attgtgga aa tggtcaacaa tagcaccgta tatgttgatg gaaaaccgga 660
aatcagaca gcacagttta actgggatcc agaaacagtg ggccttatcc atggatcttt 720
tttctggggc tatattatga cacaattcc aggtggtttc atttcaaaca agtttgctgc 780
taacagggtc tttggagctg ccatcttctt aacatcgact ctgaacatgt ttattccctc 840
tgcagccaga gtgcattacg gatgcgtcat gtgtgtcaga attctgcaag gtttagtgga 900
gggtgtgacc taccagcct gccatgggat gtggagtaag tgggcaccac ctttggagag 960
aagccgactg gccacaacct ctttttgtgg ttcctatgca ggggcagtgg ttgccatgcc 1020
cctggctggg gtgttggtgc agtacattgg atggtcctct gtcttttata tttatggcat 1080
gtttgggatt atttggta tgttttggct gttgcaggcc tatgagtgcc cagcagctca 1140
tccaacaata tccaatgagg agaagaccta tatagagaca agcataggag agggggccaa 1200

cggtggttagt ctaagtaaatt ttagtaccctt atggaaaaga tttttcacat ctttgccggt 1260
ttatgcaatc attgtggcaa atttttgcag aagctggacc ttttatttgc tcctcataag 1320
tcagcctgct tattttgaag aggtcttttg atttgcaata agtaaggtgg gtctcttgctc 1380
agcagtccca cacatggtta tgacaatcgt tgtacctatt ggaggacaat tggctgatta 1440
tttaagaagc agacaaattt taaccacaac tgctgtcaga aaaatcatga actgtggagg 1500
ttttggcatg gaggcaacct tactcctggt ggttggcttt tcgcatacca aaggggtggc 1560
tatctccttt ctggtacttg ctgtaggatt tagtggcttc gctatttcag gttttaatgt 1620
caaccacctg gacattgccc cacgctatgc cagcattctc atggggatct caaacggagt 1680
gggaaccctc tctggaatgg tctgtccctt cattgtcggg gcaatgacca ggcacaagac 1740
ccgtgaagaa tggcagaatg tgttcctcat agctgccctg gtgcattaca gtggtgtgat 1800
cttctatggg gtctttgctt ctggggagaa acaggagtgg gctgaccag agaatctctc 1860
tgaggagaaa tgtggaatca ttgaccagga cgaattagct gaggagatag aactcaacca 1920
tgagagtttt gcgagtccca aaaagaagat gtcttatgga gccacctccc agaattgtga 1980
agtccagaag aaggaatgga aaggacagag aggagcgacc cttgatgagg aagagctgac 2040
atcctaccag aatgaagaga gaaacttctc aactatatcc taatgtctga gaggcacttc 2100
tgtcttctcc ttactttaga aacagaaagt atccatacct attgcctttc ttgtagccca 2160
gcttgccaga ggtccaaata ttgggagggg agaagatcta accagcaaca gggaaaagag 2220
aaatattatc tttcaatgac atgtataggt aaggagctgc gctcagttga taacatagtt 2280
gataatacat attttttgaa ttgacagttg acccttctct caaagagcta aacttattca 2340
gaaaggaatg actagaagaa aaaggagaca ataccatggt gttcaaagaa acattgaagg 2400
aaattgggat gtttggccag aaggaatgta aacagtagta gtagctgcca ccacatctct 2460
agggtagcca tgcagaggag ggcttcatat tcccaataaa cccacgttg tggcaggtgc 2520
tttataaaca ctcttattta atctccacac ctttatgaca cacatttctt atccccattt 2580
tacaaccaag gcatctaaag caacaagaaa tgaacttgcc caaggtcatc tgccagggtc 2640
agtgtgaga ctgttgaagc tctcaatagg tggcagtttt agggaagatt tccattcagt 2700
gtagggaaga catttgtaat aatgaaaact gaaaatggag taattgtgag taactcacca 2760
ctttagcagg tgttggggaa gggaaacatt tgggttgatg aggagaggg gattcaaag 2820
tgtgagaggc tagattcaaa gaccctcagt gttctatggt atctgaagag tcaaaggtt 2880
ttgtgactcc atagttttta aagtaataag ggtcaaagac tacatcagag attcaaag 2940

gtttttaaaag aaaagctaag caagagagcc aaatttttag aaatctgatg gtcaaaatag 3000
 ctgaaagcag taaacaagag attggctatt aaatttcaac tttccataat attaagaatg 3060
 tagctaaatg atgtcccaaa ctacttacaa acttttaaga catttaataa ttttaagaagt 3120
 aggttcatgt gttttcttag gtaaagttct tctgaaagaa ttttctattt ttaaaaaatg 3180
 tatctcttta gccttttctg ctggagatta tattaggaag tttcatcaga ttgtataaaa 3240
 ttatgatttt gtatcaaaag tattcatgat gactctattt ggaatgatat tcagggaat 3300
 cacaataata tagcagtagt tatacagaga aatactacaa tgaaaacatt tggggcaatt 3360
 agacctacag ttactgttga aaaattcacc ttigtattgca taaggcaatt acatggatac 3420
 ttttagatat atttaaaatt ttaacattgg catctaaagt gttatttgaa aataaaatta 3480
 ttttcctggt cattgatttt aaacatttta ttcctacttt cagaagaaaa atataatag 3540
 gaaaaaatta tagatttact tgtagcttat tattgtaaag tgtttttttt tttttttttt 3600
 ttctaatttc tcccacatgt atttctgggc ccagtgata ctagctgagt tgtagtgtat 3660
 tttataaatg gaataatctt ggggaaaaat tgcgattctt cattaaataa tattctttat 3720
 gtcactagca tacaatttat gttagtagac atctttaaat ctctttaatg agtgaatcca 3780
 tgcaagcccc ataaaacagt tcctagcatg cagaaaatgc ccacgtaa at agctgtcatc 3840
 atcattatct ttttaacattt tgggggactt tccagttgaa aagaaaacat gctatgtcat 3900
 ttttatccat tatccctgga acttattgtg aaagttgtgc tgttttctaa gt 3952

<210> 1572

<211> 3696

<212> DNA

<213> Homo sapiens

<400> 1572

gttactagca gtcctggtgt gcttgttgcc ggggtaggcg caacctcgca ctggaggcct 60
 ggcttgaagc cagtgcattt gcatcagagc ccaggcaggg actgtccata ggaagccaca 120
 tggggcaatg actcatccaa ggccagtcgg tgatagagac ctgaagagca ggttgaaagt 180
 gggagaggga ggtctgtgtc tgcagcccca tgctttattt ctgcaggaag ccctcccggg 240

aacacccagc agccgctgcc tggcctgcc a ctggcttccc cgccaggggt cccgcccgtc 300
tccttgcaca cccaggtcca gagtgtggtc cccagcagc tactgacagt cacagctgcc 360
cccacggcag cccctgtaac gaccactgtg acctcgaga tccagcaggt cccggtcctg 420
ctgcagcccc acttcatcaa ggcagactcg ctgcttctga cagccatgaa gacagacgga 480
gccactgtga aggcggcagg tctcagtcct ctggtctctg gcaccactgt gcagacaggg 540
cctttgccga ccctggtgag tggcggaacc atcttggcaa cagtcccact ggtcgtagat 600
gcggagaagc tgcctatcaa ccggctcgca gctggcagca aggccccggc ctctgcccag 660
agccgtggag agaagcgcac agcccacaac gccattgaga agcgctaccg ctctccatc 720
aatgacaaaa tcattgagct caaggatctg gtggtgggca ctgaggcaaa gctgaataaa 780
tctgctgtct tgcgcaaggc catcgactac attcgctttc tgcaacacag caaccagaaa 840
ctcaagcagg agaacctaa tctgcgcact gctgtccaca aaagcaaatac tctgaaggat 900
ctggtgtcgg cctgtggcag tggagggaac acagacgtgc tcatggaggg cgtgaagact 960
gaggtggagg acacactgac cccaccccc tcggatgctg gtcaccttt ccagagcagc 1020
cccttgtccc ttggcagcag gggcagtggc agcgggtggca gtggcagtga ctcggagcct 1080
gacagcccag tctttgagga cagcaaggca aagccagagc agcggccgtc tctgcacagc 1140
cggggcatgc tggaccgtc ccgcctggcc ctgtgcacgc tcgtcttct ctgcctgtcc 1200
tgcaaccctt tggcctcctt gctggggggc cgggggcttc ccagcccctc agataccacc 1260
agcgtctacc atagccctgg gcgcaacgtg ctgggcaccg agagcagaga tggccctggc 1320
tgggcccagt ggctgtgcc cccagtggtc tggctgtcta atgggctgtt ggtgctcgtc 1380
tccttgggtg ttctctttgt ctacggtgag ccagtcacac ggccccactc aggccccgcc 1440
gtgtacttct ggaggcatcg caagcaggct gacctggacc tggcccgggg agactttgcc 1500
caggctgccc agcagctgtg gctggccctg cgggcactgg gccggcccct gccacctcc 1560
cacctggacc tggtttgtag cctcctctgg aacctcatcc gtcacctgt gcagcgtctc 1620
tgggtgggccc gctggctggc aggccgggca gggggcctgc agcaggactg tgctctgcga 1680
gtggatgcta gcgccagcgc ccgagacgca gccctggctt accataagct gcaccagctg 1740
cacaccatgg ggaagcacac aggcgggcac ctactgcc acaacctggc gctgagtgcc 1800
ctgaacctgg cagagtgtgc aggggatgcc gtgtctgtgg cgacgtggc cgagatctat 1860
gtggcggctg cattgagagt gaagaccagt ctcccacggg ccttgcatth tctgacacgc 1920
ttcttctga gcagtgccg ccaggcctgc ctggcacaga gtggctcagt gcctcctgcc 1980

atgcagtggc tctgccaccc cgtgggccac cgtttcttcg tggatgggga ctggtccgtg 2040
ctcagtaccc catgggagag cctgtacagc ttggccggga acccagtgga ccccttgGCC 2100
caggtgactc agctattccg ggaacatctc ttagagcgag cactgaactg tgtgaccag 2160
cccaacccca gccctgggtc agctgatggg gacaaggaat tctcgatgc cctcgggtac 2220
ctgcagctgc tgaacagctg ttctgatgct gcgggggctc ctgcctacag cttctccatc 2280
agttccagca tggccaccac caccggcgta gaccgggtgg ccaagtgggtg ggcctctctg 2340
acagctgtgg tgatccactg gctgcggcgg gatgaggagg cggctgagcg gctgtgcccg 2400
ctggtggagc acctgccccg ggtgctgcag gagtctgaga gaccctgcc cagggcagct 2460
ctgcactcct tcaaggctgc ccgggccctg ctgggctgtg ccaaggcaga gtctgggtcca 2520
gccagcctga ccatctgtga ggaggccagt ggggtacctgc aggacagcct ggctaccaca 2580
ccagccagca gctccattga caaggccgtg cagctgttcc tgtgtgacct gcttcttgtg 2640
gtgcgcacca gcctgtggcg gcagcagcag ccccgGCC cggccccagc agcccagggc 2700
accagcagca ggccccaggc ttccgccctt gagctgcgtg gcttccaacg ggacctgagc 2760
agcctgaggc ggctggcaca gagcttccgg ccgccatgc ggagggtgtt cctacatgag 2820
gccacggccc ggctgatggc gggggccagc cccacacgga cacaccagct cctcgaccgc 2880
agtctgaggc ggcgggcagg ccccggtggc aaaggaggcg cggtggcgga gctggagccg 2940
cggccccacgc ggcgggagca cgcgagggcc ttgtgctgg cctcctgcta cctgcccccc 3000
ggcttcctgt cggcgccccg gcagcgcgtg ggcatgctgg ctgaggcggc gcgcacactc 3060
gagaagcttg gcgatcgccg gctgctgcac gactgtcagc agatgctcat gcgcctgggc 3120
gggtgggacca ctgtcacttc cagctagacc ccgtgtcccc ggcctcagca cccctgtctc 3180
tagccacttt ggtcccgtgc agcttctgtc ctgcgtcgaa gctttgaagg ccgaaggcag 3240
tgcaagagac tctggcctcc acagttcgac ctgcggctgc tgtgtgcctt cgcggtggaa 3300
ggcccagggg gcgcgatctt gaccctaaga ccggcggcca tgatggtgct gacctctggt 3360
ggccgatcgg ggcactgcag gggccgagcc attttggggg gccccctcc ttgctctgca 3420
ggcaccttag tggctttttt cctcctgtgt acagggaaga gaggggtaca tttccctgtg 3480
ctgacggaag ccaacttggc ttcccgac tgcaagcagg gctctgcccc agaggcctct 3540
ctctccgtcg tgggagagag acgtgtacat agttaggtc agcgtgctta gcctcctgac 3600
ctgaggctcc tgtgctactt tgccttttgc aaactttatt ttcatagatt gagaagtttt 3660
gtacagagaa ttaaaaatga aattatttat aatctg 3696

<210> 1573

<211> 3381

<212> DNA

<213> Homo sapiens

<400> 1573

```
aggtgcagcg ggtcccccg tgtccccagc ctgctgcggg cccgggaact cccggcggac   60
ctgcagaggg gcgccccggc ttctctgcgt ctcagcccgc cccgggggtg cggtctttgc  120
ggccaggcctt tcagcgcgga aaaagattgg agggctcctag tcaccccaaa gaggacaggc  180
attagcagag ccgcggggcg cgggtgcatg gaaccggaat gtgctgcgcg ccagcctgga  240
gcgctcggag cccggaggcc tgccccggag gggaaaacgc ggcggggcg ccatgggccc  300
cggggtcctg ccccaggttt gcttctcatt tgtgctccat ccaacaagag ctcgtattcc  360
gtgtgccatg aactgtgtca agggctccaa gtgccagggc tgctataaca aagtaccaca  420
aactgggtgg ctccaagcat gtttattgtc tcacagtgtc gaagaaatct acaaggccat  480
gtccctgtg agagaccaga tgaagaggct gtggtggatc aggggtgggac cagtacaatt  540
ctcaacattc actatgaaaa agaagagctg gaagtcttca caagatccct gtgaagtttg  600
caggcatgtg caggacaaag gaagagaccc tcaactccaa aatctctata tctttactcc  660
tggaagtctt tgaagttttg ttgttccaga gctgtgacca gaccaaagaa ctgtgatatt  720
tttttctctt aactatgcta ggctttttgt tgttgttgtt ttttaaact aaaggagttc  780
tctccacaga ctttctgctt ctttccaggt cacagaactc tgtatgtggg agttcggatg  840
ccgcttggcc ggcagagcca tcggcatcac cgcactcatg gccagaagca ccggagacga  900
gggcggggca aaggagccag ccaggggggag gaaggcctgg aagccctggc ccacgacaca  960
ccatctcagc gtgttcagtt cattcttggc accgaggaag atgaagagca tgtgcctcat 1020
gagctgttta cagagctgga tgagatctgt atgaaagagg gagaagatgc tgagtggaag 1080
gaaacagcca ggtggctgaa gtttgaagaa gatgttgaag atgggggaga acgctggagc 1140
aagccttatg tggcaaccct ttcattgcac agcctgtttg agctaaggag ctgccttatt 1200
aatggaacag tcctcctgga tatgcatgca aatagcatag aagaaatttc agacctgatc 1260
```

ctggatcagc aagaactgtc cagtgccttg aatgacagca tgggggttaa agtgcgggaa 1320
gcccttctca aaaagcatca tcatcagaat gaaaagaaga gaaacaacct cattcccatt 1380
gttcgctcct ttgctgaggt tggcaagaag cagtctgac ctcatttgat ggataaacat 1440
ggtcaaaccg tgtctcctca gtctgttcca actacaaatc ttgaagtaaa aaatggagtg 1500
aattgtgaac atagtcctgt ggatttaagc aaggtagacc ttcatttcat gaaaaaatt 1560
cctactgggg ccgaggcctc caatgtcctg gttggagagg tggatatattt ggaccgtccc 1620
attgttgcct ttgtgaggct gtctccagct gttcttctct caggcctaac agaagtgcca 1680
atcccaacaa gatttttgtt tatcttattg ggtccagtag ggaaaggtca gcagtaccat 1740
gagattggca gatccatggc caccatcatg acagatgagg tatgtgcaac ttttgcttca 1800
gtcttccatc tcataaatat ttattgaata ttactctgt gccaggcaat atgctagtta 1860
ttggggataa aatactttcc attgcaatat ctgctgggaa gtagttcagg gtacttctct 1920
gagagcccag tgtggaagga ccaagctcta gaggattttt cttcctatgt tatctctcct 1980
tttttgagta atcaagaatg cagagaaatc ttttctggg gaaactatta ttgccaagta 2040
ggatatatag agaaatatat taaggttggc ttaactttca agagaagatg gttaattaaa 2100
tacattcaag ctatttacat aaagaaacct cactcctgtt ccactaaatg agaccagttt 2160
gtataaggtc atgggtgtga cctcaggcag tgtagtgtga atgtcttgac tagtctgtac 2220
caaaacaacc agatattttg acattttgac attgaacca cagtgcatac tctggtaagg 2280
actgcactgc tcggtaagct gcaaagtagg gctttcaagg catatgcctt aggcggcaga 2340
gggagggtgtg gcctgttttt tatcagcttt ctttgattga gaggcttaat tcaggaagga 2400
ccttcattag taattccatc cagtgtttcc gacctttaag atcaagaaaa tttccctctc 2460
aacgtgggaa agctgattaa aaatTTTTTT tttcatatat cttgccttc cttccatcct 2520
ttgtggagat aacataattg tacaacttta gactcatgtc ttatctcttc ttatactagc 2580
agacatgtat ttagttcttt taatgcatct catttccacg cttgtttttt aaatcctttt 2640
atccttgcac ttctctaagt gctaaagttt tctgcatctc agatcccat gacagagata 2700
aaaatcaaca ggttgtattc atttttcacc atatccattg gtgattgttt catgtaaagt 2760
tacttttaac tttcctgagg gttttctctt ctctgtagat ttttcatgac gtagcatata 2820
aggcaaaaga gcgagatgat ctctggcgg ggattgatga gtttctagac caggtgacgg 2880
tgctccctcc aggagagtgg gatccctcca ttagaattga gccacccaaa aatgtccctt 2940
cccaggtaat gtatgcacat cagccaatgt ggctattgtc acttactgac tgcccacat 3000

ggacaaagca aagaccatgt gggatatatgc taaatatatc aagatgcagc tctgttttgg 3060
 tgcacctaga atatcaaaac aataataaaa atgaatctgg gctgggtgtg gtggctcaca 3120
 cctgtaatct cagcactttg ggacgccgag gcaggtagat cacctgaggt caggagtttg 3180
 agaacagcct ggccaacatg gtgaaacccc atctctacta aaaatacaaa aattagctgg 3240
 gcgtgggtgg ggggtgcctat aatcccagct acttgggagg ctgaggcagg agaatcgctt 3300
 gaacccggga ggcggaggat gtagtaagct gagatgggtgc cactgcattc cagcttgggt 3360
 gacagagcga gactccacct c 3381

<210> 1574

<211> 3133

<212> DNA

<213> Homo sapiens

<400> 1574

ctgtatcttt tctcctgtg tttaatgttt cactagggag aggaaataaa gcagaaggaa 60
 cgtgtgaagc tctgtgtctc agacggggcc ctcccgtcga gaagctggta gtcagtgagt 120
 gagaacaaga gaacaagaac accctgaaca gtcctggttg ggatggtgtc cacattcatg 180
 ttctgcgggtt cttgaacaca cggatgcctc tgggccacct gtccttttcc gaggggtgtgg 240
 gtgggagtgg atcctccggg cgcaggtgcc aggcaggtgc aggcgggcgg tcggccactg 300
 ctgctgctcg tcctgccag tgtctgggcc tgaaggggct cctccaagc ggtgccttcc 360
 tgcggttag aagggaagc gccagagagg gcaggctaca gtgcttcaca cccttcgcca 420
 cggctgtgaa actggagatg ggtgggtttt gtatgttaat ttttttttt gagacggagt 480
 cttgctctgt caccaggct ggagagcagt ggcgtgatct cggctcactg caagctccgc 540
 ctcccggtt cagccattc tctgcctca gccccccga gtagctggga ctacaggcgc 600
 ccgccaccac gcctggctaa ttttttatat ttttagtaga gacagggttt caccatgtta 660
 accaggatgg tctcgatctc ctgacctac gatttggccg cctcggcttc ccagagtgtc 720
 gggattacag gcgtgagcca ccgcgcctgg ccaccagct aagtttgtat tttgttgga 780
 gacggggttt caccatattg gccagactgg tctcaaactc ctggggtcaa atgatccgcc 840

tgcgtcggct tcccagagtg ctgggattac aggtgtcagc cactgcgctc agctgggaga 900
tgaattttca tttaatgact taactttttg ttagcacagg ttttgtgtgt gtgtgtgtgt 960
gtgtgttttg ttttttgttt tgtgtttttg aaacggagtt ttgctctgtc acccaggctg 1020
gaatgcaatg gcaccatctt ggctcactgc aacctctgct tcctgggttc aagtgattct 1080
cttgccttag cctcccagac agctgggatt ataggcgtcc accaccacgc ccagctaatt 1140
tttgtatttt tagtagaaat ggggtttcac catgtgtggc caggctggtc tcgaactcct 1200
gacctgaagt gatccacccg cctcgacctc ccaaagtgtc gggatgacag gcatgagcca 1260
ccgcacccgg ccaacacaga tgtttattga tcgtggagga tacattgtgg aaaatgtttt 1320
tctctctttt accatttttg ggaagaggga taggtaagtg caggagttt gtgctgaaac 1380
agcgctggc aatttttcag aaatgaattt gatattgcgc tccaccttg agctgttcac 1440
acctgtggct acccctggaa agcgctgggg ttgttgatgc ttttggctgc ccggcttcct 1500
gaggtctcgc tgcttttttg ggaaagatga ctggcttccc tgtgggacgc ttttgtctga 1560
cacgtgatga tgtggctctg cctgccactg tgcaccatcc caggtattga atttgacct 1620
tttcttttca agtttctgtg cttagtgttt ttaatgttta cttttgccac ttacaataat 1680
atcaccaaaa taatatgcat agagtttttg aagaaacata gaaaacatga gcagaatgag 1740
acaattcctt gggctgtagt ttggacccaa ctgaatcctg agtgctctgt ggctgacgct 1800
gtctaccctg gggagagaca cactcaggag tggccgtttg gccagaaaag aaggtcatgg 1860
cccctggcct ggccccgcc ctgcaggag acagaagcca caccatttgc accatccacg 1920
ccttgctcca gaaggcctgg ccgccttctc cctgggggtg attcaaggat ttggtctcgg 1980
accagacccc cctccacagc tgcccggccc cagacccatc tcttggattg aggggtgtgtg 2040
ggctggaacc agtgggtcac tgtggcagct tcatctgagc cgaagggtgtg ggctcctctgt 2100
ggctgtgcga ttgacctga tgggaaggag cgttctaccc attctccttg ttttcagtgc 2160
tgcggtatca gtcagtgatc tgaggaaatc ctgtagggga aggcaggctg cagtgaaaac 2220
aggagctggt gaaaccgagc cctctgcac tgcgaatgtg ccctagggtg tgctgctggg 2280
gacatggatg ccaagcggag gcctgcgtgg cctcctgagc agcagctgac cgcccgtctc 2340
atgctggacg ggacccctgg gcgggtggac atgagaccac tgttggccag ggacgccgtg 2400
cggaggccta cgtggctgcc tgagcagcag ctgaccgcc gtctcactgt tggccagggc 2460
tttgtggcgt ggggtgtttc cagtctgcct ggagcagcga gaagcagctg tgcagactgg 2520
tggcggtggg agggtttgct gggactgatg gggacaccgg ccagcttgct tggtgtccag 2580

cagccctgcc ggacttggcc tcctgtcctg tcgttgggag ccctggctgg ggctgctttg 2640
 agcaatgacg ctggcccaga gcagcttccc acatgacccc agagccgagg gtctgccctg 2700
 tcctaggtta ggtcttcatg gtttagagta aaaccgtgag ggatgttaat tatgggcatt 2760
 gaagacttaa ggttttctta aatttttagt gagcagtgat tggccttcaa tacttgtgct 2820
 gagaggaatt ttaagccagg ggaagtgtaa gaaaatgttc ccattcagga gagatttgtt 2880
 tggagtttct ttcttcctct gtatgtatgt tgtgggtgtcc acctttaacc acgtttcatc 2940
 caaaacgatg atgcagcttt aacatgaatg ttacattttt attttcaagg aattattatc 3000
 tatgttccct ttgtaaagga aagataatgt tgtaaattctt tttattagat aatgtaaaga 3060
 tgtatatcag tatttttggg tcatgttata gattatggat atattgttta ataaataaag 3120
 tattttttgg aac 3133

<210> 1575

<211> 3582

<212> DNA

<213> Homo sapiens

<400> 1575

tgctcacctc agccctccaa aatttaagtt ttgatatgtg ttacatccat gaaatcatca 60
 ccacaatcat gataatgtgt cttgaattct cagtatttat ttatttttat ttttttgagg 120
 tggagtcttg ttctgtcccc agactggagt gcagtggcgc gatcttggct cactgcggcc 180
 tccgcctccc gagtttaagc gatttctcctg cctcggcctc ccgggtggat cggattgcag 240
 gcgtgcatca ccatactgg ataatttttg tatttttggg ggggacgggg tttcgccatg 300
 ttggccaggc tggctttgaa ctctgacct caagtgatcc acccgcttg gccctcaag 360
 gtgctgggat tacaggcatg aaccactgcg cctggccaaa ttatcagtat ttaaatttaa 420
 ataaaatgta aaaattcatt cctcagctgc actggctgga cagccacacg cagccagtgg 480
 ctactggatg ggacaacaca ttcaaaacca ttatcctgtt ttatcttcaa agcatttacc 540
 actgtctgac tagcttctcc aacgtgcgcc cttcttgctc tcatatcatg tgtcttattt 600
 tcttcttatt ccttctgatt ggaaatgata tcatttgtgt gtgtgtgttt ttccctgggtg 660

actggttgtc ttccttggca gaatatgagc ccaccaagc tgggtgttca ctggtcgtgt 720
tcacagtgtg tctccagggg caggttcata agggcactag gaggaggttg tgaatgaagg 780
gaggtgatgt tcacactaag acctgaaaaa tgtgtccagt taataagtgg acagggacaa 840
aggtcgttag acaaagagga gtgtaggtgg catcagttac caggggagga aatgttgatt 900
caggactgag aggcaaaggg acctggctag aggacggggg cccagaaggt ggtttaagga 960
ctggtgtgga cacacacagt tctgttgtct gccagcggga ggggcctcac ggggggctgt 1020
tgggagccag attgtcagct tttggattta ccagctgtgg gtggcagtgg gcgtgtaact 1080
cagcatcttg ctgcctcagt ttctctcatc tgtaaagtgg ggataataac atttacctca 1140
taaagttcct gtgaggattc gatgacttga tacatcagtt gcttagcgca gggctcagca 1200
ctcagtacat gttccctgtc aggaaggcag ggaggcctca ctggcagcat caggacatgg 1260
gacatcagga catacaccat ggctctcagg gaaaggaaag agaccctctc ccaggtgtac 1320
aagctcgatt ctaaactca tgggaccctg cattgtttgc tccccattc attcactagt 1380
ccgtgcgtgt actcagtagt ggcataagca gactgctcgg gtcggacctg aattagcctc 1440
accactctc ctctacact gtccctcccc agggcacatt cgcctcccag gtgatgctgg 1500
aggggggacaa gttgaaagtg gagcgggaga tcgatggggg cctggagacc ctgcgcctga 1560
agctgccagc tgtggtgaca gctgacctga ggctcaacga gccccgctac gccacgtgc 1620
ccaacatcat ggtgagcccc tggccagcgg gcactgaggg cctgggggtg gcaagcacat 1680
tgccagccca gtgcccccg gtggtcgcac gtggggaggg aaggatcaa aggaggtctc 1740
gtgcacagga agccgtcacc tggagtgttg ctgatagaga gagtttgctg ggtcatctct 1800
gccaatactg agagttcatg gaggttgctt tggctagcag ggagggttg ctggtatcta 1860
ggccagtaga aagccttcgc tgggcagcag aaggtgttcc ctttgcatt ccagccagtg 1920
gaacaagttc actgggtcat ctaggttcat tagggagggt ccccttggtg atttttgcca 1980
atgtgaagtt accatgtaga tcattctagt taactaggaa ggtgacagg ggtctcttgg 2040
ctaacaggta gagttcacta atcatcatgg ccagtaggat ggttcgctg ggtcatcttg 2100
gccaatatta acagtttagt ggttcactct cgccaataga gaatattcat ctgagccaac 2160
agggagggtt cactggatca tctcaactaa tggggagggt tcaatgagtc atttcagcca 2220
ttacagagtg ttactacat catctcagcc tatagggaga gttcagcgca tcattcagct 2280
ctataggcag ggttcagcgc atcatctcag cctataggga ggttcagcg catcatctca 2340
gcctataggg agggttcagc gcatcatctc aacctatagg gaggttctg cgcatcatct 2400

cagtctatag ggagggttca gcgcatcatc tcagtctata gggagggttc agcgcatcat 2460
 ctcaacctat agggagggtt ctgcgcatca tctcagccta tagggagggt tcagcgcatc 2520
 atctcagtct ataggcaggg ttcagcgcat catctcagcc tataggagg gttcagcgca 2580
 tcatctcagc ctataggag ggttcagcgc atcatctcag tctataggca gggttcagcg 2640
 catcatctca gcctataggg agggttcagc gcatcatctc agcctatagg gagggttcag 2700
 cgcatcatct cagcctatag ggagggttct gcgcatcatc tcagcctata gggagggttc 2760
 agcgcatcat ctcagcctat agggagggtt cagcgcatca tctcagccta tagggagggt 2820
 tctgcgcatc atctcagcct atagggaggg ttcagcgcat catctcagcc tataggggag 2880
 ggttcagcgc atcatctcag cctataggga gggttcaggg catcatctca gcctataggg 2940
 agggttcagc gcatcatctc agcctatagg gagggttcag cgcatcatct cagcctatag 3000
 ggagggttca gcgcatcatc tcagcctata gggagggttc agcgcatcat ctcagcctat 3060
 agggagggtt cagcgcatca tctcagccta tagggagggt tcagcgcatc atctcagcct 3120
 atagggaggg ttcagcgcat catctcagcc tataggagg gttcagcgca tcatctcagt 3180
 ctatagggag ggttcagtgc atcatctcag cctattggga gccttcagca tgccatctca 3240
 accaaaagtc cagagggttc agcccatggg actggtctgc aggcctggca cccatgggaa 3300
 gggcttcctg atttggttac ctaaaggagg actgctgcag tagttgggcc tcccagggcc 3360
 tcctagccag caggagtgtt ccacaccagg tgtggccctg tgagaagttt cgcgtgtcct 3420
 ggccagtggg tgggtccaag ctctctgtga tcagtgtgga ggaccgccc cagcgcacgg 3480
 ccggcgtcaa ggtggagacc actgaggacc tgggtggcaa gctgaaggag attgggcgga 3540
 tttgagcccc tcccagagat ggcaataaaa ctgactctca ac 3582

<210> 1576

<211> 3280

<212> DNA

<213> Homo sapiens

<400> 1576

tttcatctgc agagtgggta tattgttttc tactttgaag gatggattgt ggggacaaaa 60

ggaggtaacg acataaggct caggctcagag tctagcacia taggtgctcc acgaacatga 120
ttttctctag tccttaaatt catgctctct ctgttggtga gcatgtgaat tcattctttc 180
atacctcttt catcatgtaa cttttaatcc ctaatgaatg gaattactta ctgtagtgtt 240
tctgtgggaa aatgttcaaa tgccagaaag ccatctcttc tccccacatt cccagcctca 300
cactgataat aaaggggtac ctccctctct cctcaaaaaca ttgcaccccc ttggggaatg 360
gagagggaag ggcaagtga agcgctccag tggacagatg ggggaaggca gcagctctgt 420
gtttacagaa attgttaaatt tatttacaca attttggtgt ccctaccaga tccagagtgt 480
gggatactgc aagaatggcc ttttttatgt tacaactgg aattagatga gtcatttaatt 540
tgaagcttaa gttttttag aagagtaata ctcttttcat ataaactggg ggtaataaaa 600
gctttattat ctagcagtag gcataaagtt ttcttttggg ttagcccaat tattagtgt 660
tttaatccac ccccttgcta cccctgtta gttatcttag attaaaagg caattctagc 720
ctggaacata cgtcttcttt taaataattt ggcatattta aattaggagg acatgaagtgt 780
gcagaatttg agttaaacat ttaaataatat tttgtgccct tgattatatt agacacctgc 840
tgctttggaa agtcacatgt ttagcgaaaa cgtactttgg ttgaaatgtt aaaataaaaa 900
gacctagcaa aggtaacctt gtagttcaga tatgacagtt tgattttggc taggactgga 960
atgagtgggt tctgtgtagc catttcttcc tccctgtgta gagagccttg ctgatttcta 1020
aatcttcgta aaaggaaaca cccttgctgt ggaggcttgc tcaggggagc tgggagtgga 1080
ggcgggctca cacatgagcg catgtgcagg aacgtttcac ggtgcaaagg ttaaaggcgg 1140
gtgtgggcag aggggaacct accacaggtc ccattctgga cagacgtgcg cagttgtggt 1200
gatgtgcaaa cagctgtact ggaactggat atccactttc acatcgggca tccgcctaga 1260
agagcagcgg gcagctgatg ggaagacct caaacaacag acagtgccgc agcagaaagt 1320
tggagtgact ggtccccctg atccacaagt ccgctgtccc tctgtcattg agtttgggaa 1380
gtatgaaatt cacacctggg actcctcccc atatcctcaa gaatactcaa ggctgcccc 1440
attgtatctt tgtgaatttt gtctaaaata tatgaaaagt agaactattc tgcagcagca 1500
catgaagaaa tgtggttggt tccatcctcc tgccaatgag atttacagaa agaataatat 1560
ttctgtcttt gaggttgatg ggaatgtgag taccatttat tgtcaaaacc tgtgtctttt 1620
ggcaaagtgt tttcttgacc acaaaacct ctattacgat gtggagccat ttctttttta 1680
tgtactaaca cagaatgatg tcaagggtgt ccaccttggt ggctactttt ctaaggaaaa 1740
gcactgcaa cagaagtaca atgtttcctg tataatgatt ctctctcaat accagcgtaa 1800

gggctatggc aggtttctca tcgatttcag ttatttggtta tcaaagcgtg aaggccaagc 1860
 agggctctcca gagaaaccgt tatctgatct gggctcgtctt tcctacatgg catattggaa 1920
 aagtgttaata ttggagtgcc tttatcacca aaatgacaag cagatcagca ttaagaagtt 1980
 aagcaagttg actggaatct gccctcaaga catcacttcc acactccacc acctacgaat 2040
 gctggacttc cgtagtgacc aatttgtgat tatccgccgg gaaaaactta tccaggatca 2100
 catggcaaag cttcagctga atttgcgacc tgtagatgta gatccagaat gtttgcgctg 2160
 gactccagtc atagtgtcca actctgtggt ctcagaggag gaagaagagg aggctgagga 2220
 aggagaaaac gaagagccac agtgccagga aagagaatta gagatcagtg tgggaaagtc 2280
 tgtgtctcat gagaacaaag aacaagattc ttattcagta gaaagtgaag agaaaccaga 2340
 agttatggct ccagtcagtt ctacacgttt gagcaaacaa gtccttcctc atgatagtct 2400
 tcctgcaaat agccagccat ctcggagggg ccgctggggg aggaagaaca gaaaaaccca 2460
 ggaacgtttt ggtgataaag attctaaact gctcttggaag gagacgtctt cagctcctca 2520
 ggaacaatat ggagaatgtg gggagaaatc agaagccacc caggaacaat acactgaaag 2580
 tgaagaacag ctggttgctt ctgaggagca gccaaagccag gacgggaaac ctgaccttcc 2640
 caagagaaga ctcagtgagg gggttgagcc ctggcgagga cagctcaaga aaagccctga 2700
 ggctctgaag tgcagattaa cagaaggaag tgagaggctg ccccgctcgt acagtgaggg 2760
 tgacagggct gtcctcaggg gcttcagtga gagcagcgag gaggaggagg agccggaaag 2820
 ccctcggta agctcgccac caattctcac aaagcccacg ctgaagcgaa agaaaccatt 2880
 tctccaccga aggaggagag tccgaaagcg caaacaccac aatagcagtg tagtcacaga 2940
 aactatttct gagaccactg aagtgttaga tgaacctttt gaagattctg actccgagag 3000
 gccaatgcca agattagaac ccacgtttga gatcgatgaa gaagaggagg aagaggatga 3060
 aaatgaactt ttccttagag aatacttccg tcgtttgtct tcgcaggatg tactcaggtg 3120
 tcagtcctct tctaagagga agtctaaaga tgaagaagaa gatgaagagt cagatgatgc 3180
 tgatgacact cctatcttaa agccagtatc tcttttgcga aaacgtgatg tgaagaattc 3240
 tcctcttgag ccagatacat ccacaccttt gaaaaaaaaag 3280

<210> 1577

<211> 3103

<212> DNA

<213> Homo sapiens

<400> 1577

```
tttatttcat caggtttgtg tagtttttcc tgtagagatc tttcactttg gtaaaattta 60
ttcctagatt attttttcct ttggtaggta ttgcaagtga gattgctttc ttgatgcctt 120
tttcagattg ataactgttg gataaaaatg ctactgattt ctgtatgttg atgttatatc 180
ctaaaacttt actgaatttg ttcatcagtt ctaagaatgt tttgggtggac tcttttaggtt 240
tttttaagtg taagatcatg ttgtctgcac acaaagataa tttgacttct tcctttccaa 300
tttggacacg ccttatttct ttctcttgcc taattgctct ggcttggaat tccagtacta 360
tgttggatag aagtgatgag agtgaacatt cttatcttgt tccagatctt agtggaaagt 420
ctttcagttg ttccgcatta agtatgatat tagctgtggg tttgttatgt atggccttta 480
tcatgttgat gtatgttcct tctaatecag tttgttgaga gtttttatca tgaagggatg 540
ctgaatttta ttgaatgctt tttcagcatc tgttgaaatt atcatatgga ttttgcctt 600
gattctgttg atcatgtatc atgtttattg atttgcattg attgaacat tattgcatat 660
ctgggatgaa tcccacttga tcatgatgga atggtctttt ttttaatgtg ctgtggaatt 720
cagtttgcta gtattttgtg gaggatttct tcatttatgt tcatcagaga tattggcctt 780
tagatttttt atgtgtgtgt gtgggtggcct tgtctggttt tgttatcagg gtaatgctag 840
cctcatagat gaatttgga gttatccctc cttcagtttt ttgaaatagt ttgagtagac 900
ttggtattag ttctttaaat gtttggcaga attcagtagt gaatccatca ggtcctgagc 960
ttttctttga tgggagattt tttactacta ttttgatctt gttactcatt attggtctgt 1020
ttagattttc tgtttctttc tggttcaatg atggtaggtt gtatgtgtcc aggattttat 1080
atgtttcttc tagattttcc agttttttcg gcatgtactt gttcacgata ttgtctaagg 1140
agcttttgta tttctgtggg atcagttgaa atgttttctt ttttatccct gattttattt 1200
atttgggctc ttaatctttt ttcttagtct aactacaggt ttgtcaattt tatattttca 1260
aaaaactaac agtttgcttt gttgatcttt tatatacttt ttagtctcaa tttctttttc 1320
tttctttctt tctttttttt tttttttgag attgagtctt gctctgttgc tcaagctagt 1380
ctggaactcc tgggctcaag cgatcctttt gcctcagcct cccacataac tgggactaca 1440
gacatgcacc accacaccag gctaatttct ttttattttt tgtagagatg ggggtctccg 1500
```

tatgttgccct aggctggctct tgaactcctg ggctcaaacg atcctccac cttggcctcc 1560
caaagtgcctg gggttacaag tgtaagccac tgcgcccagt ctgaccta tttctttct 1620
tctactaatt ttggatttgt tttgctcttg atttttgagt tctttaagtt gcatagttaa 1680
gttgtttatt tgaaatcttt ctttttgatg taggcgttta ttgctataaa ctttcctttt 1740
aatactactt ttactgtatc ccatattctg atatgttggt tttgtatttt catttgtttc 1800
aagacatttt taaattttct tcttaatttc tccattgacc catttgttat tcaggagaat 1860
gttatttcca tgtatttgta tagttttcca aaggctcctct tgttattgac ttttaggttt 1920
tttttttata gtcagaaaaa gatacttgaa atgatttcag cttttttgaa tttgttgaga 1980
cttgttttgt gacctaacat atgggtctatc ctggataatg ttttatgtgc tgatgaggaa 2040
aatgtataat ctgcagcagc agactgaaat gttctataaa tgtctattag gtccatttgg 2100
tctagagtat agactccaat ccttctttgt agattttctg cttggatgat ctgtctgttg 2160
ttgaaagtgg ggtgttgaag tgctatacta ttattgtatt acagtttgcc tcttccttta 2220
gatctaataca tatttgcttt atatttgggt aatactgcaa tgggtatata catatttact 2280
attattatat tctcttgcta aattgactcc tttatcatta tatgatgacc ttctttgttt 2340
ctttttatgg tttttgactt aaagtctgtt ttatctgata taagcattgc tactcatgct 2400
cttttttggt tttcatttac ataaaatata tttttctatt tgttcatttt ttgtctgtat 2460
ctttataggt gaagtgaatt tctttaggc aacatatagg tgggtcttgt tttttaatcc 2520
agttagtcac gtcttttaat tatgatgtct ttttaattgga gaatttagtc aatttatatt 2580
cagtattatt attggtaggt aagggttac ttagccatt ttgttatttg ttttctagtt 2640
attttgtaac tcctctcttc cttttttct attttccttt gcgattaaat gattttccct 2700
ggtagtatgt ttttaattcat tgctttttgc ttttagtgta tctattatag gtttttgctt 2760
tgtggttacc attaggttca ttaaaaatcg tatagttcta ataagttatt taaaactgat 2820
atggctgggc gtggtggctc acgcctgtaa tcccagcact ttgggaggcc aaggtgggca 2880
gatcactagg tcaggagatc aacaccattc tggccaacat ggtgaaacc catctctact 2940
aaaaatacaa aaaaattagc tgagcgtggc agtgcgacc ttagtccca gctacttaag 3000
agggtgaggc aggataattg cttgaaccca ggaggcgggg gctgcagtaa gccgagatcg 3060
cgccactgca ctccagcttg gcgacagagc aagactctgt ctc 3103

<210> 1578

<211> 2863

<212> DNA

<213> Homo sapiens

<400> 1578

ggttctgcc	caaacaaact	gcagtttgtg	ccctcagcaa	tgcccgtgag	tatgtggtag	60
ttttcttctt	ctgtaagtcc	tgtgtttcat	gtctggattg	ggcaccgtgt	gcacatttgt	120
actgtctcaa	caaatggctt	cttgaacaa	agctgttagc	ctgggcctca	ctcttgaggc	180
accgtaacag	tggtgcagac	cccagatgag	aaagttagga	aacagagcca	gtggtggtgt	240
ccaatgcac	caccccgggt	ctgtgtggat	ggaaggtgcc	caggtgctgg	agtgtgggct	300
tctgctttcc	acccttgcca	gacttaggtg	agctcccaaa	aacttcccgt	atgtcccgtg	360
gcaggggtaa	tggggcgctg	gggagagggg	aaaggtcgac	tgggttctgg	gctggtggga	420
ggctggggca	cagcttggtc	tgagcagttc	ggtgggtggg	ccctcgtggt	gggggttctg	480
ccaggcaggt	ggaacaggca	acaccaacac	ctgagcttgc	ccagtactca	gggcttgatt	540
tgtcatactg	atgcagggct	ggattggggc	tgacagcccc	tgggcactcc	tgatgcccga	600
agtgcccagg	ggctgtgagc	ccccatctag	cactggctcc	ttctaaggca	aagttatatt	660
cctgtagctg	ctttctctct	gtgccttctg	aaggctaagt	tgaacagagg	aaactacaga	720
aattgctccg	aaacacatta	ccgtgtgctt	ttaaaactta	aaagctgtgt	ggttagcaaa	780
cttttaattg	caaaatgagg	ataactgaaa	atggaaagta	ctggagtttt	aaaatcaagc	840
agcgactttt	gtcatgggga	tctggatata	aatgcgaag	attagaaatg	gaaatcacct	900
ttgcagtaga	agaaaaattg	aagtcagaag	tgctaagtgg	aaactataat	cacttgttct	960
aaattgccag	ttccttattt	gcaaatgaat	aacctaggat	cagtggtgaa	agacatgact	1020
ttttttctta	tttaggtgtc	gatcttaaat	cagctcatgc	tgatttttgg	ctcctgtttg	1080
ccaaacttcc	ctttctgagc	ccctgctgac	ccatgaacac	cccctttgat	gcatgagggt	1140
gaaaatgaaa	gcaggaacca	tgggccttct	gcttccttct	cggggcctat	ttgctgtact	1200
gccgcaggct	cccagggttc	cctggttgtg	actcctgaga	ctacagtggg	gttgccttat	1260
gcagaaacct	ccaagaatga	cagatcttag	attaggttgc	ctttactttt	tctagaaagt	1320
ggtgattggg	aagtagccat	tccttccgtc	ccaccagcct	ccctgttttt	tcagagagca	1380

caattgcatt ccatacctgta gttgggaatt cccccccctc cttttttttt taattgagac 1440
agagtcttgc tctgtcacc aggctggaat gcagtggcat gatctcggct cactgcaacc 1500
tctgcctccc gggttcaagt gattctcctg cctcagcctc tcaagtagct gggattacag 1560
gtgcctgcc aatgccccg ctaatttttg tatttttagt agagatgggg ttttaaccatg 1620
ttggccagggt gggctcttgaa ctctgactt caggatgatcc acccgctcg gcctcccaaa 1680
gtgctgggat tacagggtgtg agccactgtg ctgagcttga attcttgtat tttctccaga 1740
ccagtgtcct cacctttcag gatcctgctc acatatcacc tcttctggga ggtcttacca 1800
ggttgcagtt tgatgtccag gctatccct tagctttgtg acttcaggta acttgctgca 1860
ttgttctgat ctgcagtgc attgtctctg aaatgctact gatgctgcc tgcctgcctt 1920
gcaggactgt tggcaggcct gattccagaa gctctctaga actgtactgt gctggacaga 1980
taggcagggg gcttggcagg gtaatttctt ggttctaggg tgtgtgtttg gggagtatgt 2040
ttggtggcc tgagagctgc agcatttcag gttgttttct tcaactgcagg tcatttcatg 2100
ggcaacaaca cagtgtgga tgttttgagg cgtgaaggct atgaggtaga acacgcccct 2160
gctggacgac ccatacaca agggaagagt aaaaagacct ccacacggcc cactctgtcc 2220
accatctttg ctccaaaagt ccctaccctg gaagtaccgg caccagaagc cgtatcctca 2280
gggcactcaa cgctgcctcc ctttgtgtcc cggcctggaa gtgccgacac gccagtgag 2340
gccgaacaga ggttccggaa gaagcggagg cggtcacagc ggaggccgag actccggcaa 2400
ttcagcgatc tgtgggtccg cctggaggag agtgacatag tcccgaact ccaggtcctt 2460
gtcctggaca ggcacatctc cactgaactg cggctccctc gccgtgggca tttccaccac 2520
agccagatgg tggccagcag tgcctgcctg tctctctgga ctctgtgtt ctgggtgctg 2580
gtgctggctt tccaaacaga gacaccctc ctgtaacgac tggaagcacc aggctaagaa 2640
cctgaccct cggacttgaa gaatggccat tcctgtactc cacattctgg tctagccttg 2700
ttgggccc aa tccagaagag actgctcttg aaaaagcggc ccagtgttga tttctctctt 2760
tccaaggaat gtgactttgg gttatccaac tgtgggggca ggtgtacagt tttgtaacat 2820
agtgagttgt gtgaaaataa attataaatg agttgtatga aag 2863

<210> 1579

<211> 3378

<212> DNA

<213> Homo sapiens

<400> 1579

ttacactaga caatcttcac cttttcacat ccctgttttc tttgacctta ttaaaaactt	60
tttaaaatat gtatgttttc tcagcagaat ttaatctcag caatgctcaa tagaattttt	120
tttttttttt tttttgaggc agagtcttac tctgtcttgc ccaggctgga gtgcagtggc	180
acaatcttag ctcaactgcaa cctccacctc ctgggttcaa gcgattctcc tgcctcagcc	240
tcctgagaga gcccagctaa ttttttaaat ttttagtaga gatgggggtt caccatgttg	300
gccaggctgg tctcgaactc ctgacctcaa atgatccggc ctcccaaagt gctgggattt	360
caggcatgag ccatacagcc cagcccaata ggatattctt aacctgggggt ctatggaccc	420
tgagaaattc tatacaaagg tatttgtatt ttttttttgg tatctatagc tttttttttt	480
ctttgcctcc gctagcagca gggagggtat tagctttgat tgaatgtgta actagaccag	540
aggcattccc acccccaccc ccacctgtt tcactctccag cccacaaaaa aaggttaaga	600
acctctgcta cagaagggtg tggtgaggat catttaactt tgtagatacc tggtatagca	660
ctgagagtaa aaggaggagc aatggagagg ggagggtcccg cagagctgga gaccctaaaa	720
gctgaacctc taacaagctc tgtaatctta ggcaagcaaa ttaacctctc taagccttaa	780
ctgtaaaaaat taggataatg atagtcttgt actcagaagg aagttgtgag cattaaacaa	840
gatgattcct gtcaagttct tagcatagtg cctggcacag ggatgcatca taaatataaa	900
attcttttagc tgtcagcatc aatttcttct ccatcattcc tcacatatgt tggagtgcac	960
agtactatgt agacgtgct ttctgtctt taagacggat ccgaatgctt gcctttcgca	1020
gatgaagatg tatgttgagc aggtggatgc tgtaaaaatg ggactagatt agaagccctt	1080
tctgtaacct tgactgaaga aaatacaagg tgacattgtt taaaggctct atcacttgcc	1140
tttgtctagg gctgctgttc tcttctgcac atagtttgcg gtcattgagt tggccttttt	1200
actcctaaaa tggcacaatg tgtcttcaaa tctcaacaga tgcattgtat ttcaactcta	1260
tcatgaaagg tagcttttgc cattttttcc tttttgtcac caccatcatc catttttact	1320
tactgcatgt cccactgttc caactcttta aaaacgagag ggatgatgcc aatcctccac	1380
atgttagact gtaaaacaca tctccttcca cctttttctg tgttccttgt tccctggaca	1440
catcagtata tgggcttgtt ctcacaagag tccactgaga tgtaaatgtt aatttaggaa	1500

ctgtattatt gtttctcccc aaaaagggttg ctgatgtgct attccagtgt gtactaaatc 1560
actttttgcc tcattatttt aaagttttaa taaatgaatg tattaaatag tcttagtgta 1620
agagtgcggtt ttcagtcacc ataagcataa tagccttaaa agtgctgttg tgttctatga 1680
cactgtgata ctattttag cttttatcca aagatggtaa gctcagtgcc tcaggacttg 1740
aagcaggcag cccctaagca actgtttttt gtgtgagctg tgagtcccag gatacaagcc 1800
tctcatcttc aaggtcccca aagagcagca cagctggtag ctgtggattt ttaggctgcc 1860
ctcctgtaag gtaaattggc ttttccaccc actcccttgt tgatagagtg ccttgagaga 1920
aaatgaagac actagagtgc tgggtctcaga ctgcgctgag gcatcgcctg ttctgtaaga 1980
aaaagcaaat gaagattcat gtgtattaca actgtttctc ctttggaatc acaggccttt 2040
tttaaataga gggggaggag gggatagtc tagacctgaa aagattcctt cttgtaatat 2100
aaggagagct gtgagctgtg gatcaaaatg aagaggagtg aggggagtat gcagcgttgc 2160
ctgtggctcc agctgagctg ggagctggcg gcttttcctg ggaactgtat gtggtgcagc 2220
accttgggac agcagtgtct cttagtgtct tccacacgcc cccctgggaa ataggctttc 2280
tttgagaca gggactttcc catttaagtc agctaacttt tctctaagat gaatcgtttt 2340
cattctggga agcatgttgg tagatgtcat accaggaaaa taaccatttc agttggctgt 2400
aattttgcct tttggctata cacattgagc ataattatit aggggtcttca tcttttctc 2460
ttcattgtcc attctttcat tttgtttttt tactactgct acaaccacca ccaactgccac 2520
catcatcttc ttgcaaatgg ctaagcagtg tctgcattat tctaccttca cccagtaaac 2580
tgagtagaat agatcttctg agccctgttc agaagcagct aaaaccggga cttgcccagg 2640
atctgtcagc tcttaaata tagactgga aatcatacca gatctccagt actctttcta 2700
ctgccaatg aaactccctt cttcccttc actccctctt gccagcttag cctacctagg 2760
aagtaaagaa ggcataatac aaatgaaaat catggccttt attattcatc tggttatgct 2820
agtacttggg gtggtgactc ctttgcagga ttatttttaa gaatggtggc agctatgttt 2880
tactcacttt agaagtcaaa gactcacggg aaatcttagc agaggcaaat aaaaacatga 2940
tacaaaacc taacatctaa atctgtactg tccagtatga tagctgttag ctacatgtgg 3000
ctatttgaat ttaaatacaa gttgattaaa atgaaataaa atgtaaaagg tagttattag 3060
tcacaatcat atttcaagtg ctgaatagcc acatacgccc tgagatactg aatttttaat 3120
ttaattataa tttattcaca tttaaatgta aacaggcaca tgtacctagt agccacttta 3180
atggactgtg tagatacaga acatgtctat cactgaagac agttctattg ggtggtgctg 3240

atctaagggc tatatcaata acactgtggt ctcttgcaa gttgtaccct ctctgtacag 3300
gggaggacaa cacaaatact tcatgagctt tgtcttccag tgaccttctc agctcataaa 3360
cagcatggct ttgctttt 3378

<210> 1580

<211> 2969

<212> DNA

<213> Homo sapiens

<400> 1580

tttctggtcc agctggagaa ctaccctccc aacacggagg tcaacctcac tctgatctgg 60
tgcgtggtgc tgaagctggc cagcttgggg atgttctccg tctccctggg tcagaccata 120
ctgtgcattg gcagagacaa gagcagctgt gaggctctacg gctacaacgt ttgtgactat 180
cagtgtctggg agaactccgt gggggaggag ctgtacaagc tgagtatctt caacttcctc 240
ctcaccgtgg ccttcgcctt cctggtcacc ctgcctcgga ggctgctggt ggaccggttc 300
tcaggccggt tctgggcctg gctggaacgg gaggagtcc tggtcccca gaatgtgctg 360
gacatcgtgg cggggcagac ggtcacctgg atgggcctct tctactgccc cctgctgccc 420
ctgctgaata gcgtcttctt ctctctcacc ttctacatca agaagtacac cctcctgaag 480
aactccaggg catcttcgcg gcccttccgt gcctccagct ccaccttctt cttccagcta 540
gtgtcctcc tgggcctgct tctggctgca gtgcccctgg gctatgtggt cagcagcatc 600
cactcctcct gggactgcgg cctcttcacc aactactcag caccctggca agtgggtccc 660
gagctgggtg cccttgggct cccgcccatt ggccagcgtg cctccacta cctgggctcc 720
cacgccttca gcttccccct cctcatcatg ctacgccttg tctgacgggt gtgcgtctcc 780
cagacccagg ccaatgccag ggccatccac aggctccgga agcagctggt gtggcaggtt 840
caggagaagt ggcacctggt ggaggacctg tcgcgactgc tgccggagcc agggccgagc 900
gactctccgg gcccgaagta cctgcctcc caagcttcgc gcccgcagtc cttctgcccc 960
ggatgcccac gccctggctc cccgggccac caggccccgc ggccgggccc ctccgtcgtg 1020
gatgccgcgg gactgcgttc cccttgccct ggacagcacg gtgccccggc ctccgccccg 1080

agattccgct tccccagcgg cgcgagctg taaccccgac ccctgcctcc ccgaagcctc 1140
cctggggccc cttcaggcct ccttactcca tcttcagac ccctggcgac caccgcccct 1200
ctcagtggct ccagggcctc cctcagaggt ccccaaagat ggacacacaa cccagcggc 1260
agcaggaaaa acatatggga attttctttc tatattttta tctcatccct ttaaaatgtc 1320
tattttttat tgtgtttttt ataataata taatctatta gtatagtatc tcttgaatgc 1380
gattttttct agaatgtgtt ctgctgattt gttttagagc catgagtgc aattatacac 1440
atacatctat tgggaatgct cagaagttgt ttactgatgg aagtgccttc agaagagtcc 1500
gggaaccact tcctaaggaa ggaaagagct ggccacagtt agagcaagcc tgcctggggc 1560
cctgctctgt gttccagctg caaactgcct gcatcatccc ttcctgttac tcttccttca 1620
cctgagacag tcgaggccac agcgtcagcc agggccagag ctgggatttg aaccaggca 1680
ctcgggctcc agagccacac tgccccagtg tggggcttag tggcggctcc tggccctgac 1740
tgaggggctg actgaagcct ggtgagagcg tgctgggtca gcctctccct ggcggggaatc 1800
ctctccgtcc agtcttctaa cctagcagcc tcacgtccac agagctgcct tgtgaaactc 1860
agcagagccc tggttctctg cagagccgtg ttctcccagc ctgcttcatg gctccctggt 1920
tgagccaagc ttgcggatcc gtgggggtgaa ggtaccgca ccgcctgggc cttagtggta 1980
tgtacgggcc tgcacgtga gcagcgggcg ggggcccagg caggtgaggc agctggccac 2040
aagggcaggg cccggccccc ctcccaaggc tgtgtctgat attcttgagc ctgttcgagt 2100
ttcttttcc aagcctcctg ttctcccacc cccaccctg ccatgctgca gtgactaaat 2160
ctgtggttct catccttgga gaacacctga gtagctgcta caagctggcc acagcccagc 2220
gactctgatg tggttgggct ggggtgtggc agcagccagg gcatcgggac ttttcgaagc 2280
tcccaggtga ctcaccgca gctggggatg agaactgtca ggagggaagg tcagaagtcc 2340
caggatgcac ttgaaaagcc tctagctcca ccagtacca gctcctggct ggactcctgg 2400
tctggactca gcatcaggga ggctctggcc tctcgccctc agggctgggg gcttcttcac 2460
atggtcatca aagacttggc cagttccgcc tctcccacgg ccgtccttgt ctcaccagc 2520
atcacgacgc atcagttcac caacaaacac gattcagtgc tgctagtgtt gggctcctgtt 2580
ctgggggctg gtgatgaggc caagaggga agaggagct ctgtgttcca tcgagggggc 2640
gacaagcctg gaccagatga aagtgactca tgttgtaaat tagcggctta gggccaaagg 2700
tggcccctgg accagtggcc tcagcatcac ctgggaaaag gttagaaatg aacattccca 2760
ggccccacct cagcctcctg aatcagagca tccctttggc aaaccatact gagaaacaac 2820

cacgtgcatc accaagcgct gtgaagaagg caagctttga gaccttgaag gaatcatcaa 2880
actctgggcc tcggtgtgct caccagggc gagacaaaga cgccatgctc ctccaagtgg 2940
cctccaagat taaatgagca atgactttt 2969

<210> 1581

<211> 3366

<212> DNA

<213> Homo sapiens

<400> 1581

acatgatagg ggagctggag gaacctgccg tctccgccat cgagcgcccc tccgagctgg 60
ggttggacgc tgccagtttg cacagcagca gggagacaag agacacacag ccacagagga 120
caaggccata tgagatggag gcagagactg gagagatgcc gccacaagcc aaggatgcgt 180
ggggccacca ggagctgggg gaggtgagga acagattctc cagagagcct gcggagggaa 240
ccagcctacc aacaccttgg tgctgggctt ctggcctcag aactcagaca gtgaatctgt 300
gttgtttgaa gcctcctagt ttggctcctg gttacagcag ccccaggaca ctcagtcctc 360
agccgcccct gcagcaaate tcagtgtctc cccctcatct gtttgagag gccccatcaa 420
cgaacaaatg cagacaactc ttcctggagt ttgtcattaa agacaagaag ctggggggcac 480
agcgaggggg acatgaggtc aaggcgctgc tgctttgtta ggtaggggag attgagcatg 540
tttgtatcct gatgggaatg gacaagcagc aggagcatct gatggcacag caaccagggg 600
gccaccctt aaggacaggt gggccggctt gccttggagc atgggtgctt gctcacaggc 660
tcggggcaag gcacagatgc gggaggcaca gacgcggcag tgggagcagc tgggtccatc 720
ttctcccagc tctgggcaca ggtgggagggc acagtgcgtg ctttccctgc aggcttcctg 780
tgcttcgccc cgaaccatct cccaggtct gagttcctct gctggtccag gaggggtctca 840
gtgcggtggg acaaactcgt tccattgggtg gatggagaca caccagtgt ggacagaggc 900
tgcaagcatc ggagggcggtg tccatgcggc agtattgggtg tcatggccat aaggttggca 960
cttcctatag actccggcct tgcattttca gcagctggag ctgttcacag catccttctc 1020
acaggagttt tgggagcaca accaggtgtt tctctgatcc gtaagagcct cctgcccgtt 1080

catccatcaa cagcctctgg ggacaccttc ggcagcagga atcactggtg ttgggtactg 1140
agtttgaatt tctgtgcca cctttgcgt ggcacaaagg ggctggctat gtggaagcag 1200
aatgtggggc ccttgcttta aagacctcag aggctggttg aagggataaa cctcacaccc 1260
ccaaaattga gagaaaacat caaggagct gcaccgcagc accaccttgc tctctgggct 1320
tcagcaccag ggaggcggac agctccattc actgtggccg ccaccgcca tccaggactc 1380
cagccctccc cgcatcatcg ctctgcttgg ctgtcggggg aggagagcgg ctactgctgt 1440
gcatgggtgc ttgggggcgg tggggggtgg ggtgcagagg aggcaccacc ctaccggggg 1500
ccatcaccaa ccaatgggga tgggagcggg tagataaatg cccagcctc cccagcgtcg 1560
gtggacagtt tggaagtgc ttcattctcc atggcttccc agaggggccc cagcaggcct 1620
gagcagcagc tcttgtaaa ctgccctcca tgggctgctc tctcttctg tctcactgtg 1680
tgctccgtcc ctcaattcag ctctctggtc tcacatcca aacacactac ctctgtccaa 1740
gtccttgtct ccaccagggc ttacatttgg ggtgcctaga aaaggagaga gcatataatc 1800
aatgccaggg tgagtggggg gacaccaga gccatgaggt cccaaggagg gggcgatggc 1860
agggtggccc gtgaggcagg tggctctgggc ccaatccccg gctcaggatg gacagaaggc 1920
aggagcagcc tctgtggggg ctggtgacag tgtgagctgg cccagcagtg ggtgggcttg 1980
gctccaaggg tgccacaggg actgtgaagc aggctggaga ggggtggcgag cgggcctcca 2040
gtgggaaaac caggcatggc actgaggcgg gcaggtaatg tcagccctac actcctctc 2100
cttccggccg gactctcacg tggatctctc cttctggctg tgcaggttgg atctatgaac 2160
acgagacaca gaaacaccag ctggaggagc ccaggaggcc cagcagcggg aaccatcgta 2220
gtccatgggc cactgagtgc ccggaccagg gccccggggc ttcctgacag caggaacaac 2280
aggaatcatt caaaccttg agcccagagg gcaggacggg agcggccttt tgtccccgc 2340
gggcaggcca gggaggtgga caggccggga gcctgaagcc tgagcagctg gaggctcgct 2400
cattctcccg tggctactgt gttcccggag ccccaacaga gggccaattg tcccacgggg 2460
cgggtgcctg tgggtgtggt gtcttggcgg cagccactgc ctggctgttc tcaggatccc 2520
aatcccagggt gaaggctgca gtcctcttgc tgtgtgtgga ctatttagct ccgtgggcgg 2580
ccaccttgcc atggggccac agcagccatt ccagaggctc cccagtgcc ctctctgccc 2640
gggggggggg tgctcccggg tgtggtccgg ctgaggagtc tctctgcag gaaaggtggc 2700
gtgtgacggg ctggagccgg cctgcgaagt ctgcctggtg gccatggctc aggggcctgt 2760
gtctcccgga cgccccagc ggggcctctc ttgaaggac tttgtgctcc tgccaggaga 2820

aaacagccct aacagctgcc tcctgggcca tttccaaaca ttcgtgtgtc aggccagaga 2880
 gcgccagtgc gttgcccttt tgggtggttc caaacgtgtg gagttggggc cctggcagct 2940
 tcggaccacc agccccctt cactgagggg ttcgtcatca ccaagcctca gccagagatg 3000
 ttaaaactgga aaaacaatca cggacccccg tgggggaagc agcttctggt ctggggacag 3060
 tcatgagctc tgcattgcgc tgccggtgtc ccttctcggg gcctggcggg tatcagggtc 3120
 cacccttggc ctggccacac ctaccgcctc tcaggccccc acctcttccc ggaagacacc 3180
 tggaggcttc aacaccggct cagccctttt cctggaagaa acctggaggc ttggacgccg 3240
 gcccataccc atttttggac accggggggt tcaatatctg tggcatcagc tcctcagctc 3300
 tctcttccct cagcatccca ctgaccggaa attccaggag atcccgagat gggccaaaca 3360
 caaaac 3366

<210> 1582

<211> 3188

<212> DNA

<213> Homo sapiens

<400> 1582

acatgcaccg catctctggg tgcgccttgg agccgggact tccctttgcc cttctccggc 60
 tgggccgtgg gggaagcgcg ggggtcacca gatgaccgct cggggcctgg gagggaccct 120
 gctgagtcag cgccgtttct catctgtctg agagaatccc gcggtcaggg cggagagaat 180
 ggcggtcctt tccgcattcg gccgccccgt cgggaacgca tgctcctcat cggcaaggct 240
 cctcattagc tgtccacgtg gacaccacaa gcccagggtc ctcttccctt cccttcttga 300
 agcaccatgc tcgaaaggag tctccatttg tttctataaa tccaaccaa aggggtgaaaa 360
 tgaaagccct ccgtcagagt ccctctggtg caggctgtgg cgctcgggta cctgggaccg 420
 gcactgaacc ctctggggac ctgcaagctc tggccagcag cacgggggtc ggccgtgctg 480
 ggctgtggga tgctgtttcc agccggcccc cagtgggtcac cgggtgggag gactgcatcg 540
 cagggacttg tctctttgtc tgttaaaaaa tctgattgag tgaaagaaga acctgcctcc 600
 tgtccttccc ttgctctgtc tttgtttctt gtagtttcat ttgcagacag tagatccaaa 660

aataacctgg cagccagaat ttgaaatacc cctcatgccc cggagaatct gggcccgtgg 720
gtttctgcga aatcgccctt gacagcttgg ctcagcacct ttgttctgga cgagcttctc 780
acgctgttgg attgagtgtt cttttttctt ttgactagc attccacgcc tacgggaagg 840
caggcaagat gctggtggag accagcatga tcgggctgat gctgggcacc tgcacgcct 900
tctacgtcgt gatcggcgac ttgggggtcca acttctttgc ccggctgttc gggtttcagg 960
tgggcggcac cticcgcagc ttctgtctgt tcgccgtgtc gctgtgcatc gtgctcccgc 1020
tcagcctgca gcggaacatg atggcctcca tccagtcctt cagcgccatg gccctcctct 1080
tctacaccgt gtttatgttc gtgatcgtgc tctcctctct caagcacggc ctcttcagt 1140
ggcagtggct gcggcgggtc agctacgtcc gctgggaggg cgtcttccgc tgcacccca 1200
tcttcggcat gtccttcgcc tgccagtcct aggtgctgcc cacctacgac agcctggatg 1260
agccgtcagt gaaaaccatg agctccatat ttgcttctc ccttaatgtg gtcaccacct 1320
tctacgtcat ggtggggttt ttcggctacg tcagcttcac cgaggccacg gccggcaacg 1380
tgctcatgca ctttccctcc aacctggtga cggagatgct ccgtgtgggc ttcatgatgt 1440
cagtggctgt gggcttcccc atgatgatcc tgccatgcag gcaggccctg agcacgtgc 1500
tgtgtgagca gcagcaaaaa gatggcacct ttgcagcagg gggctacatg cccctctcc 1560
ggtttaaagc acttaccctc tctgtggtgt ttggaacct ggttgggtggc atccttatcc 1620
ccaacgtgga gaccatcctg ggcctcacgg gagegacct gggaagcctc atctgcttca 1680
tctgcccggc gctgatctac aagaaaatcc acaagaacgc actttcctcc caggtggtgc 1740
tgtgggtcgg cctgggcgtc ctggtggtga gcaactgtcac cacactgtct gtgagcgagg 1800
aggtccccga ggacttggca gaggaagccc ctggcggccg gcttggagag gccgagggtt 1860
tgatgaaggt ggaggcagcg cggctctcag cccaggatcc ggttgtggcc gtggctgagg 1920
atggccggga gaagccgaag ctgccgaagg agagagagga gctggagcag gccagatca 1980
aggggcccgt ggatgtgcct ggacgggaag atggcaagga ggcaccggag gaggcacagc 2040
tcgatcgcgc tgggcaagggt attgctgtgc ctgtgggcga ggcccaccgc cacgagcctc 2100
ctgttccctca cgacaagggt gtggttagatg aaggccaaga ccgagagggt ccagaagaga 2160
acaaacctcc atccagacac gcgggcggaa aggcctccagg ggtccagggc cagatggcgc 2220
cgcctctgcc cgactcagaa agagagaaac aagagccgga gcagggagag gttgggaaga 2280
ggcctggaca ggcccaggcc ttggaggagg cgggtgatct tctgaagat cccagaaaag 2340
ttccagaagc agatggtcag ccagctgtcc agcctgcaaa ggaggacctg gggccaggag 2400

acaggggcct gcatcctcgg ccccaggcag tgctgtctga gcagcagaac ggcctggcgg 2460
 tgggtggagg ggaaaaggcc aaggggggac cgccgccagg caacgccgcc ggggacacag 2520
 ggcagcccg c agaggacagc gaccacggtg ggaagcctcc cctcccagcg gagaagccgg 2580
 ctccagggcc tgggtgtccg cccgagcctc gcgagcagag ggacgtggag cgagcgggtg 2640
 gaaaccaggc ggccagccag ctggaggaag ctggcagggc ggagatgctg gaccacgccg 2700
 tcctgtttca ggtgatcaaa gaacagcagg tgcagcaaaa gcgcttgctg gaccagcagg 2760
 agaagctgct ggcggtgatc gaggagcagc acaaggagat ccaccagcag aggagaggagg 2820
 acgaggagga taaaccagg caggtggagg tgcattcaaga gcccggggca gcggtgcccc 2880
 gaggccagga ggcccctgaa ggctcctgag tgcagcccca cagactgag ccaccagac 2940
 cctcacaggg ctggggcctg cgtccctcct cgtgacctcg gccagctgga cccacatgag 3000
 ggccacctct ggaaccttct tcgaggccct ggccagccat ctgcccagcc tcggagggtg 3060
 ggcaacctgg tgcttcccgg gtggacacac aggaccactc agtggggcct gtgtgggcgc 3120
 cgagacctgg gtgtctggga agtggggcac acggggcctc cgaactatga ataaagcttt 3180
 gaaaggcc 3188

<210> 1583

<211> 2921

<212> DNA

<213> Homo sapiens

<400> 1583

ttcgggatac ctactggcca cagttgacaa gttcacaact gaatggatgg agcctttcat 60
 cctggaaggg tcagcggttt gttcacacag gaatggatgc acattcaagt gtggagttgt 120
 tttctgccgg ccaggtctca gccagcatta ttagccaaag gcttacagag agcttgattc 180
 accagtacag gatcccat aacactgcat tggaccgggg gcctacttta gagaaaagca 240
 agtgcaggag tggactcatg accatgagac tcgatgggtca catcccat acaccacca 300
 gaagttgtca gcataataga gatttggaa gacttggttg gagcacagcc agaaccag 360
 cttggagtca actacatgag gatgactcag gacgctggat acatatttat atgtgtagaa 420

aggactttta tttgagtgca taactctggt caatgttcct ttccttttct ggttttgggt 480
aaggttaggg attaacttaa tagcatacct tatagaaaag tacagagttt tgccaaaaac 540
aactgcaagt gtaacagtta cagcctataa atcagtccat tcattggaaa tccatttttt 600
attttgtttt gctttataaa aagaaagatt ggacaaggat ccagccctgt gcaatatagc 660
tgtgaacaac atagttatth tatcaatcgt ttgctcttgt ggactcagt gtatgtcctt 720
gtagaattgg aagtgtgtct gtgggttcct ggtttcctag gcttccgttg cccccctggc 780
ctttggagag tttccagatg acatattctt gactcgtgtt aatggcctaa atttgtctac 840
tgtgcaatth actagctgga ttaaaagtaa taaaggtttt tttttgtcgt taagaattta 900
agttaaagtt ttgtttggaa ataatacatc aacttttctt ctaacactgt taagtctgag 960
ttgagaataa cttatttagc caaatccct ctaaagatgt aagctcttca ttcactaatt 1020
ttattacttt tgattgaact caaagttctg tcaaaaattt cctctctgta aaatacattt 1080
ccttacccaa ctttcacatt gggaaaataa tttttcctac atgtaactcc tctttaaaat 1140
gcttctttgt catttcaaat tgaaatctca gttttgccat gggaagagag ttttccaaaa 1200
ttcctctctc ccaacaggac tatatgctct attcattttt ttgatattc atatacaaat 1260
tgttcccata ctctagtggg tgtctgagca tagtagaatt gaaaaataaa ttagtgtagt 1320
tatccagaac atttacattt aatgttgtga caaaagccag agattttggc ctgaacagcc 1380
acagcgattt tctaaactga tcaaatccag tggaagggtg ctcaattttt catatcttag 1440
aggcaaaaaa atctaataa aaaattaaga tgttaaaaga gaggcataac tgaggtttta 1500
attgggtcaa aagtagagtg taccagagc taggtgcagc caccttcaga tctgaacta 1560
gccctcctga gtcctttatt ctttttctgc aggccctggg ggatcaccct gctttcttct 1620
cttggcattt gccacaccct gtcttattca accctgtatt gaagttgttt ctcttcaaat 1680
ctttactgat agtttctcta gcttcttct tttcttaatt ctgctgaaga gactaatatg 1740
aatcttccaa tctttagtgt aacattgata attagctgtg tggccttaca tgagatactt 1800
gacctttctg tagctcgggt tcttcatagt cagttaaagtg aagagaatga tgactacttc 1860
atagcattgt tctggaaatg aaatgagatg cactgcatat cacttttaaa aggcathtag 1920
taagtagttg tcttcaactt ttccctctca ttttgtttct atatgtacaa tttgaaagat 1980
gcagaattat tttttaagtt gttaaataat atcattttgt gtcggtgtga gaactgctgg 2040
tttaaaaaac gttttcatat gtctcacctt atttgcgtct gccacactaa tttgagttag 2100
gtaagataat tatttactat tcttctttca gataaggaaa ttaaatctca gggagataaa 2160

gagaagcaag tgtctagatt cataatgcct tcaacagcac agtagaaatg ggagggaggt 2220
 agtgacacat ttcctgtgtt gtgggtgttta gtggagacac ctcctccctg ggttgtggtg 2280
 tttagtggag acacctcctc cctgggttgt ggtactgaaa actaaagggt aaattctgca 2340
 aatgtctcca agtgtttag atcaaagcca gggaaagcaa tcagaagcca gattgcattc 2400
 taatggctgg ggagacttag gcaacaaaac tcgatgaaga aaccacagcc tggaagaatt 2460
 ctttagaaag agcctaggtc ccaagtgggt accttgtgtg gattcagaaa tgaactaaca 2520
 attttgaatg aaaaggacca ttaaaatgtt tctaccagga ctaactactt tcttttgtca 2580
 aattagctca ggttaattat agagtagaca ctgcctgaat ctgtattttt ctaattaacg 2640
 tcaaaatcca ctagaaagac acgaacattt aatgttgtat aatgtatatg catatgtgga 2700
 aacactattg gattttatga actgatgaat atataggatt accttattcc atgccattcc 2760
 tttaacagat atttcttgtg tacctgggat gtaccaggta tacttcttgg tataggaact 2820
 ataccagcaa aaattgtcat ggagcttata atagaagagg tgtttatagc ttagtaatat 2880
 aaaaaatcat acaagatctg taatTTTTTT tacattaaga g 2921

<210> 1584

<211> 3577

<212> DNA

<213> Homo sapiens

<400> 1584

attgtactgc tactatgccc gctactgaga caggaacaaa gagaggctgt ttctgcctct 60
 tgggtgctctc cattggacat gtctgctggg cagtgcctggc ttttaccata ggtatttttc 120
 tgctcttctt tccctcctcc tctccctctc tcttttccag ggcactcaca cacacacact 180
 tgcacacatg tgcacagttg cacacacatg cattgaacac atgtgcacat atatgcgttt 240
 gcatccactt gcacaccac acacctgtgc actagcacc atttgcacgc atgtccacac 300
 acttgacac atgtgcattt gcagaaatgc acccttgac ttgtgtgaca cacctgcaca 360
 cttgcataca cccatttgca tacaggcaca gacacactcg catacatttg cacacacagc 420
 cacaaacttg cacaagcagc acttgtacac tgacacatat ccgtttgtgc ctatacagtg 480

cacacttaca catttgacaca cagctgtgct tgctcacaca tttgcacaca cccacctaca 540
cacttgacaca catactacac acttgagcgt gcagcacaca tacctatgtg catacatgca 600
catttgacaca tgcacacagc agtggcacac acttctctat cactctccct agtcaactgtt 660
ctccccctgtg attcccaccc ctctgaccgc ccctgtctac ttgctgcccc ctccactgga 720
aggggcctgg cctggtgccc tgtctctgtc tgtctccacc gtgcaggag gtttcacaag 780
gactggctga tgtctgcct cgagctggcc tggccgcagc tgctgctgag cggaagtctc 840
tgaggggtga ggctgagagg aaaccacact ctcaactggg tccccgcagc tctggcctct 900
ggggaggggt gtggagatgt gtgggcgtga gatggctttg agggagggac agcatgaagc 960
ttttcgctgg gtctgtcttt tcagtctcca ggacaaaact aggccactgt gctccaggag 1020
aagggaac ccacgtcccc ccaggctggg cccaccggca aatccggctc ccaggccctt 1080
ctcagcccat gcttctatct ctgccttgtc aggcttattc tttggggctt tgaagcagcc 1140
tttggtgggc aaacggcatc tcagggaacc ctggcctgtc tcctccagag cttgtgcctt 1200
ggccctgggc aggggccacc atgggctgtt gatgtaaag gcacccccag agttgtgcag 1260
tgtgggggca accctgaggt atcagcccag cccctgtct gcagcttttg ctaccagcc 1320
cagctccagc tctgtctttg tcaactggggg tgggtggggga ggctggagct caggacggg 1380
gcactcctgg cagattctcc ctgccccagg tgggaaggga ggggggaagt acccatcctc 1440
catcctcta tctgcccagc ggggtgggcg ctactatgct ggggagggtc tggctgaata 1500
atgatgctga gctcgggaca ccagccttct ccgtgcacct actgtgtgcc aagtaccatc 1560
ccaagagcat tatgggtggg aacttataca atgactcaga gaggcaccgc tataatcacc 1620
cccagtttct gtctggttcc agtcctggcc acacagctaa taagcagcaa atggatttga 1680
tctgatttta tctgaacca ggcaggctgg cccagagccc actgtctaata cattgggccg 1740
tccagcctgt caagactcca ggctcgtgg cgctgtacc ctctgtcatt tcccaggga 1800
acaagctcta gcagcacctg ccctgtgggt actttggccc tgcttcctg cctccctgcc 1860
tccctgcctc cctgcctctc atgataggag ccaaagaatg gtctcctttg caggaaagga 1920
gctcgacggg ggtcttctct tgcaggctct gtcttgcatt tgggtcctga gctttctcat 1980
tgagtaaggg gagggggcag ctggttcagt ccagcgcaga gtggatggag gccggttgag 2040
gctttcttga aaccctaagc ccagctggga tcctcgggga aggatcctc gctgggatct 2100
gactggctct tccagaggtc agtggggcat gtggctggag cccaagtagg agggaggaag 2160
aaatgggtgg ctgagtcctg gggtgaccag gccctgaacc tgccctgctg ggacccatt 2220

ccctgactct agggcccccctt tccccaccac acaggacacc aggcctcttg ctttaagacag 2280
 taaaggaaat gccttatggt gaacaattct ccaggtcctt attgtggctc caacagatgc 2340
 cagagggaca tggcaggtga ccctgggtctc ctacgaccct gactttactt gctgtcatga 2400
 ggccaatctc ttaccttgac ccacctcctg cctctgcttt cagaagggca gaagagcggg 2460
 cctcctctag cttcccagcc gcctcccgcc tcttgccgcc cggcagcgct gggcccccca 2520
 gcagcgaggt tcaggagggg aagaacctct cgcaggtgaa caaattgctg cacatcagac 2580
 acattctttt caagcctcat tttctctctt tttcatgcta actttccac tattaaagag 2640
 cattttttaa aagaagatga aaaaaggcag agagaaaaga aggatgaaag tgtgagcggg 2700
 tatccggaag tccttttcaa ttgcctgctg ctgtgcaggg tctgaactaa gagcaagaaa 2760
 ttggaggatg ctggaggggc gaggtttcgt ttcagtcctg cctattgggc caagtctggg 2820
 gcggggaagg agaggtgatg gaggtgggcc tggctgggcc ctgcggccct ggaggctgcc 2880
 cctctgcctg ccaccagcc cctggcctgt gcctggcaca ggaagcccgt caataatttc 2940
 ttgttgaatg aatgaaagaa aagaaatcag tggatggaga agggctggat tcttttgtgg 3000
 ggaccttcca cgccaccttc tctgtggggc tctagggctg agaaagaaag gacagatttg 3060
 gcaaaggatc ggcaggggct gggaaagcat taggtggacc aggcattgcta cagcaaggcc 3120
 acgcctgcac tgttgtccca ctggtgacac ccatgggtgc agccatggcg ggtgggcgca 3180
 gtttcacatg ggattggggg tgagcctggg ttgggtgggc gacccccacc ctttcctac 3240
 ccctctcccc accagcaggt actactgggt ctgcgtgaag ataaaagctc aggaacatgc 3300
 caggaaggatg tgaccatgat gatacctctg agatgaaccc aagaagaaac agcagagtat 3360
 taaaaggggg aacaggactc aggggtggact tcaagtatca ttaaataaa tcaaataattt 3420
 aaaaagttaa tattgactgg gtgcagtggc tcacggcttt aatcccagca cttagagagg 3480
 ccaaggtagg aagattgctt tagcctagga gtttgagacc agcatgggca acatagttag 3540
 accccatctc taaaaaaaaa aaaaaaaaaa aaacaag 3577

<210> 1585

<211> 3037

<212> DNA

<213> Homo sapiens

<400> 1585

tcttcagcca	cgctgtgcag	atgggtacggg	acagacagac	accagtggggg	cagggggccag	60
gaacttccag	gccccccgtc	tccactggga	cgggaccttg	atgcccacag	cgtggtgaga	120
ctttgggggg	tgctacttct	ggaggtcttg	aaatgacagc	attatgcacc	cccagcctcc	180
tgcaggcgct	cgcagctcgg	ctgggtgcat	ccttgattgt	acgggtgccg	tggcccatgt	240
gcatcctgcc	tcgccccgac	tcagtttccc	caattgtaaa	atgagagact	tggtcttcag	300
gcctcgtagt	caggtgtcag	cctccagaag	cagcacctgg	tcccggacaa	cctgcctgga	360
agtgtggtgc	actcaggtgg	taccacgggc	aaagactccc	tgcttgggct	ctgaagagct	420
ccctctgcct	ctgaggtggt	gccccctttt	cgtttatttt	ttgttgtttt	tttttaagag	480
agggtcttgc	actgttgccc	aggctgaagt	gtagtgtagc	cgctaactcc	tgggctgaag	540
tgatcctctt	gactcagctt	cccaagatgc	tgggtattac	aggcaaaaac	tcatgagtgc	600
ctgagtctcc	ttttttaaga	aaatttaagc	atgtagtaaa	aatccagtct	gaacaaacat	660
gggaaaagtc	agcctccctc	ctgccccctt	tcccggccag	gcaggccagg	cagcagcagt	720
aatgacactg	actgagcggc	gggcactctg	ttgtcctggg	gccgggctga	gagcgctggc	780
cagggtcatc	tggttccagg	cagtgtctcc	ccttggccct	gtgaccatcc	cctctgcaca	840
gcaggctgca	ccagcactta	tgtccccacg	tactgccctt	gagcgcctat	ctgccacccc	900
tgggccgctg	ccgtgggtgc	agggcagccc	ttgtctgggag	ggagtggggt	gagctggccc	960
tgtccagcct	ctgtcctcgc	ccccaggtgc	agtcggctgc	cctggacgag	atgttccagc	1020
accgtgaggg	ctgcgtccca	cgtaccaca	aggccctgct	gctcctggag	gggctgcagc	1080
acatgctctc	ggaccaggcc	gacatcgaga	acgtcaccaa	gtgtgagtgc	ccggctgggc	1140
tgggggctgg	ggactctggg	cgtctccctc	acactctcct	ctccctccac	aggcaagctg	1200
tgcattgagc	ggagactctc	ggcgctgctg	actggcatct	gtgcctgacc	tttctggcct	1260
ggctgggccc	cccgtcctgc	cgagccctgc	agagtgggct	ctgtgtgctg	gctggactcc	1320
tcgggacaag	cccatggcgc	tgatcgctgg	tgctgagccc	tgccctgggc	cccacggaca	1380
gtcagcctgc	cggcctccct	gcagctcacg	gggcagaacc	agcacatctg	gagccacaca	1440
gcttgggggg	tgtctcccat	cttttacagg	tggggatcac	agaatttctg	cccctccagc	1500
tgcctggctc	agcaggcgctg	ggtgccacca	ccctctagcc	ccagggcagc	cccggaggac	1560
aggcaagggc	ctgagaccac	tgccgactca	aagccaaagc	gagctcctgc	ttagggcagg	1620

tcagcaggca ctgtgcccag gaagagcctg cggcctcggc gtcccccagt ctccaggagc 1680
 ctctccctcc gagatacca cccagctttg tcaatcacc aagcacttta tgcatataga 1740
 gacagaacct ggacctcacc agggactgct gggcagcgat tcctggcagt ggcctgggtg 1800
 ttgtacatac acatatgcag acacatgcca gggcccccca agcccagca ccggaccacg 1860
 ttgctgcca ggtctggacc tcagcgggag aactggctcc ggggggagtg gggccctgcg 1920
 ctagaggcag aggcagttct ttgttcaagc gttcctctgg ggaccggcag cagaggcacc 1980
 gtgttctctc agccctggat acgtcttgta atctttcaca ctttattcct aaaacgtgtc 2040
 ttatTTTTat gcagctcatt ttttctttaa aggagaaaac ttgtaggtgt ttaagaattg 2100
 gttttgggag ggcgaggact gggccaggtt agaggcagat ggcacagggg cgtgtggcgg 2160
 gcgggtgagg ctgctttgca cacctgtgtt ggtggctgtc ccctgccgcc cctccctgtg 2220
 gcagcagcag gacaggtgtg tgcccagcac cctccctacc tgggcctgga agcagatgag 2280
 gggaatactt catgcaaaga aaaaagtaac atgtgcaaaa gctccccgtc cagctttgac 2340
 agtcagtttc gatgtcagct cctcggcagg gtaggcctga tgacagccct gtccctccct 2400
 gcctctgcct tgccaaggc cacggagggc gtctgcagag aggcctgcct tccgattcc 2460
 aggcgggcat gccctgcaaa cccgcctgg gcctcccttg gtctgccag ccctcggtta 2520
 gccctgcctg aatcagtaga tacttgaacg agtccccagt ctgcgggagg cagtgggtggg 2580
 gccatggacc catgcggggg gttccagggt cacacgccac ataacagaca aaaatacaca 2640
 cacgtgtgtt tttctttgca atacttgaaa tattgccact gtgcttggaac ttagaagaag 2700
 aaaatccccg tgacttcttc ctcatcacct tgatggcttt attctcacct tgtggggcat 2760
 gtttgtatTT attgcttcat ggccgactgg aatcctgagt cctgggaagc tggcactgcg 2820
 gggatcttgc ccggtgtcct ggtcctcttg cttccgtcgc ggccgcatgt gcgtgtgtcc 2880
 aagcaggctc tgggcgcctc aactgctgcc cctggttgaa tgttctcttg atagtctgg 2940
 accctttgtc tattttaaa cgaatTTTgt gtgatttcc gccctttgcg ttatattgta 3000
 taataccaac gtaaggaaat aaacctttgg aattgtt 3037

<210> 1586

<211> 2898

<212> DNA

<213> Homo sapiens

<400> 1586

acttggctct	cgccctccgg	ccgggaagca	tggggcttcc	caggctggtc	tgcgccttct	60
tgctcgccgc	ctgctgctgc	tgctctcgcg	tcgcggtgt	gcccggagag	gctgagcagc	120
ctgcgctga	gctggtggag	gtggaagtgg	gcagcacagc	ccttctgaag	tgcggcctct	180
cccagtccca	aggcaacctc	agccatgtcg	actggttttc	tgaggagcgg	acgctcatct	240
tccgtgtgcg	ccagggccag	ggccagagcg	aacctgggga	gtacgagcag	cggctcagcc	300
tccaggacag	aggggctact	ctggccctga	ctcaagtcac	cccccaagac	gagcgcctct	360
tcttgtgcc	gggcaagcgc	cctcggtccc	aggagtaccg	catccagctc	cgcgtctaca	420
aagctccgga	ggagccaaac	atccaggtca	accccctggg	catccctgtg	aacagtaagg	480
agcctgagga	ggtcgctacc	tgtgtaggga	ggaacgggta	ccccattcct	caagtcctct	540
ggtacaagaa	tggccggcct	ctgaaggagg	agaagaaccg	ggtccacatt	cagtcgtccc	600
agactgtgga	gtcgagtgg	ttgtacacct	tgcagagtat	tctgaaggca	cagctggtta	660
aagaagacaa	agatgcccag	ttttactgtg	agctcaacta	ccggctgccc	agtgggaacc	720
acatgaagga	gtccaggga	gtcaccgtcc	ctgttttcta	cccgacagaa	aaagtgtggc	780
tgggaagtga	gcccgtggga	atgctgaagg	aaggggaccg	cgtggaaatc	aggtgttttg	840
ctgatggcaa	ccctccacca	cacttcagca	tcagcaagca	gaaccccagc	accagggagg	900
cagaggaaga	gacaaccaac	gacaacgggg	tcctggtgct	ggagcctgcc	cggaaggaac	960
acagtgggcg	ctatgaatgt	cagggcctgg	acttggacac	catgatatcg	ctgctgagt	1020
aaccacagga	actactggtg	aactatgtgt	ctgacgtccg	agtgagtccc	gcagcccctg	1080
agagacagga	aggcagcagc	ctcaccctga	cctgtgaggc	agagagtagc	caggacctcg	1140
agttccagt	gctgagagaa	gagacaggcc	aggtgctgga	aagggggcct	gtgcttcagt	1200
tgcatgacct	gaaacgggag	gcaggaggcg	gctatcgctg	cgtggcgtct	gtgcccagca	1260
tacccggcct	gaaccgcaca	cagctggtca	acgtggccat	ttttggcccc	ccttggtatg	1320
cattcaagga	gaggaaggtg	tgggtgaaag	agaatatggt	gttgaatctg	tcttgtgaag	1380
cgtcagggca	cccccgcccc	accatctcct	ggaacgtcaa	cggcacggca	agtgaacaag	1440
accaagatcc	acagcgagtc	ctgagcacc	tgaatgtcct	cgtgaccccg	gagctgttgg	1500
agacaggtgt	tgaatgcacg	gcctccaacg	acctgggcaa	aaacaccagc	atcctcttcc	1560

tggagctggg tgagggctgc atccctgcag gggatggcag gggcaggccc aggcacgggc 1620
 agtaacttgc gcttctccta acaccctcc ctctgcctcc tagtcaattt aaccaccctc 1680
 acaccagact ccaacacaac cactggcctc agcacttcca ctgccagtcc tcataccaga 1740
 gccaacagca cctccacagg taagccaggc ctggcaagag aacagggtg tgccagggca 1800
 tcctttctgc cctgtccctc cccagagagc cctgtccaga aaggtgagta gcagcccat 1860
 cttgtcggcc ctggactggc tgggccaacg atggtgacga agtggcctgg ggcagggagt 1920
 gacgaggagt gtctttgtgg cgcagagaga aagctgccgg agccggagag ccggggcgtg 1980
 gtcacgtgg ctgtgattgt gtgcacctg gtcctggcgg tgctgggcgc tgtcctctat 2040
 ttctctata agaagggcaa gctgccgtgc aggcgtcag ggaagcagga gatcacgcta 2100
 ccccgctctc gtaagagcga acttgtagtt gaagttaagt cagataagct cccagaagag 2160
 atgggcctcc tgcagggcag cagcgggtgac aagagggtc cgggagacca gggagagaaa 2220
 tacatcgatc tgaggcatta gccccgaatc acttcagctc ccttccctgc ctggaccatt 2280
 cccagctccc tgctcactct tctctcagcc aaagcctcca aagggactag agagaagcct 2340
 cctgctcccc tcgcctgcac accccctttc agagggccac tgggttagga cctgaggacc 2400
 tcacttggcc ctgcaaggcc cgcttttcag ggaccagtcc accaccatct cctccacgtt 2460
 gagtgaagct catccaagc aaggagcccc agtctcctgc cagcagctga gctgggtagc 2520
 ctctctgagc tggtttctg ccccaaaggc tggtttccac catccagggtg caccactgaa 2580
 gtgaggacac accggagcca ggcgcctgct catgttgaag tgcgctgttc acaccgctc 2640
 cggagagcac cccagcagca tccagaagca gctgcagtgt tgctgccacc accctcctgt 2700
 ctgcctcttc aaagtctcct gtgacatttt ttctttggtc agaagccagg aactgggtgtc 2760
 attccttaaa agatacgtgc cggggccagg tgtggtggct cacgcctgta atcccagcac 2820
 tttgggaggc cgaggcgggc ggatcacaaa gtcaggacga gaccatcctg gctaacacgg 2880
 tgaaaccctg tctctact 2898

<210> 1587

<211> 3395

<212> DNA

<213> Homo sapiens

<400> 1587

tgtaatcctt	gtgaaaataa	atagtttaaa	tactagctcc	atttcttttc	ccaaatagag	60
ctcaggttta	ctgtcttttc	attatctttc	caatatttta	acatgagact	tagagggtta	120
tcagagggaa	tcatattatc	tgctttgctc	tttgtagttt	ttgttttact	agggttat	180
cccatcctgg	aagttttaga	tgtgtccctg	agtttcctga	ctgtatgggg	ttcaacctct	240
cttactagag	atttcttgca	ccctttccct	ggagacttaa	ccccctccc	cactggagggt	300
ttcttgcaact	cctttacttt	actccacact	cgtttgcac	ttaattgtgc	atctcattca	360
catactttca	acctccagga	tgtcccaacc	accaaagaag	tacttcaactg	cccctgcggc	420
ttttcttacc	ttggtctgtg	cacagaatta	cttggtcacc	atggcatctg	taggcctttt	480
ccttccatgt	tgctgagagt	ctcggtatat	tcatcatgct	ggtgggtctc	aatccctcat	540
tcttgaggct	gctgcagtga	gacacgtctc	ctcacaagag	atgattggag	acccttctcc	600
ggaggagaa	gggatcccag	atgtgcccc	attttgttag	aaacaagtgc	tcagtgcctc	660
aaagaaaagc	cagcacttag	acagaacatt	tctcagcaag	gcacatttac	ttctgcagaa	720
gggtgctgcc	tgcacccgtc	tgattgcaag	agcataccaa	acaaaggaga	gaaaagtttt	780
tatccctaac	gcagctcctg	ttactgtgtc	ctctcccat	tggcttgagt	tggactgaac	840
aatctaacc	aattattggc	taagacttaa	acttttctac	atatggtaaa	tatgccgttt	900
gcaagaggag	gggaggaaga	gactgttgct	aagggtggga	aggtagttta	cagaacaagt	960
ctgggcatgt	ctgggcatat	agaggtttgc	taattacaaa	ttaagcaagg	ggtggggcct	1020
gtgtacagag	caagaaagac	caaggagct	ttgaagagaa	acttattatt	tctgacatag	1080
ttgtgttcac	caaccagaa	gtgtctctac	ccttgctcatt	taggaacttt	atgaaggttt	1140
tgttacatag	gtcaatcccc	acccccact	ctgctcccag	tgtcactggg	agagagtgtt	1200
gactgcaagt	tgtccagggt	cttggtgttt	tgaacaaaga	attggacaaa	atgccagca	1260
aagcaaagaa	agcatgaagc	aacaaaagaa	caaaagcagg	aatttattga	aatgaaagt	1320
acactcggca	gtgtggaagt	ggaccaagc	agcggtcaa	gggcctggat	atagaatctt	1380
cttgggtaca	aataccctgc	ggaggtttcc	cattggccac	tttatgctca	cgtcatgtga	1440
atgaagtggg	atcccacaat	cagtctgatg	ggttgccctaa	aaccaccaat	cagaagctta	1500
aatggagtta	caaaggtcac	actcctgtgg	aaacatctga	ttgctttttg	caaccaatcg	1560
taggctaagg	tgaagttaca	aagttgcaaa	tgaagactcc	accacaatc	agtttgattg	1620

gttcagaca gccaatccc catctgccag cagaaaacgt gggagttttg caaagggagt 1680
agcctctggt ccttttggtc tttaggcctg gaaagttagg gttttccttt gaatttagtt 1740
ctaggaagtg agtgtgaaac tgtcttaggt tccctgcctc cagaccctat tctcctgcct 1800
caccaggagg tgggcatgag agttgggggg tatctggaag tttcagtcct caatcatgtg 1860
gttgattttt ctggtgacca gcctctagac tgaagctatg tagtcctgcc cactgagagt 1920
catctcatta gcatacagaa gacagtaaata tccaagggct ttagggactc tgtcccagga 1980
accagggaca aagaccaaata acttattttt cattatacca cagatacctg ttaggggtttt 2040
gttattgttg tttctacaaa acattcatct attcttgtgt tcaggagaag taatatcttc 2100
agtcattgatt agatttcaga tatgaaagaa tttttgctag tcttagcccc cagttgtaaa 2160
ataatgtcat gaaaacattt ttatttccta atgattataa caaagggaata agatcttaata 2220
gagttgactt tggtagtaca agtttgcgca aatgattgat gattttttat ttccttgatt 2280
tgtgcattag cagcttttag tgtgtcatat caagaggaat actggggaaa taatataatg 2340
attgtttata tggagttctc tactttcttg ttttggcagt gtttgaaagt taggactgat 2400
cctgaggggag ttgaattttg taaagttaata tactttcctg ctgccagtag tgatttatat 2460
ctgtgatatt atatcagcta gtcatatgag aatgagaaac aaaattactt tttctgcaat 2520
taccaactca ctagtagggg attcaggtgt ccctgggtag cacacaatat aatagagtaa 2580
tgggtaaaaac ttttttccaa tttgaacaaa aaggccttgt caactttttt taagggtctct 2640
tgatacatat ataaaagaaa tcataaagag cacttggtat atagggaaca taatttttta 2700
aattactttt ttaaagagag gtcaaattta tctgtagcga cccagactag agttcatcct 2760
cctattttct ttagggccaa gaaggaaaga aagttatcag atttaaccta tcaaaaattt 2820
tgactattta ttggatatca tccaagtgtat cttaaaatta aaatatatat atatatgtct 2880
atgtatgtat atacgtacag acaatccttt gtatctgtgg gtttcacatc cgtggattca 2940
accaacctca gattgaaaat atctggggag gaaaatgaat ggttgcattc gtacttagta 3000
tgtacagact tttttcttat tattatccaa acaatacagt ataacaacta tttatatagc 3060
acttatattg tatttggtat tataaataat ctagagggtga tttaaagaat acaggaggag 3120
gccaggcacg gtggctatgc ctgtaatccc tgcactttgg gaggccgagg tgggtagatc 3180
acgagatcag gagatcaaaa ccatcctggc taacacagtg aaaccccatc tctactaaaa 3240
attcaaaaat ttagccagac atggtggcac tcgcctgtag tcccagctac ccaggaggct 3300
gaggcaggag aatcgcttga aggaagcgga ggttgcagtg agctgagatt gtaccgctgc 3360

actccagtct gggcaacaga gcgagactcc atctc

3395

<210> 1588

<211> 3147

<212> DNA

<213> Homo sapiens

<400> 1588

tctaatagcac gacagattcc tttcagacag gacaactgtg atatttcagt tcctgattgt 60
aaataacctcc taagcctgaa gattcctcta aaaaaaaacc aataccaaag aagcctacaa 120
tgttggcctt agccaaaatt ctgttgattt caacgttggt ttattcactt ctatcgggga 180
gccatggaaa agaaaatcaa gacataaaca caacacagaa cattgcagaa gtttttaaaa 240
caatggaaaa taaacctatt tctttggaaa gtgaagcaaa cttaaactca gataaagaaa 300
atataaccac ctcaaatctc aaggcgagtc attcccctcc ttggaatcta cccaacaaca 360
gccacggaat aacagatttc tccagtaact catcagcaga gcattctttg ggcagtctaa 420
aaccacatc taccatttcc acaagccctc ccttgatcca tagctttgtt tctaaagtgc 480
cttggaatgc acctatagca gatgaagatc ttttgcccat ctcagcacat cccaatgcta 540
cacctgctct gtcttcagaa aacttcactt ggtctttggt caatgacacc gtgaaaactc 600
ctgataacag ttccattaca gttagcatcc tctcttcaga accaacttct ccatctgtga 660
cccccttgat agtggaacca agtggatggc ttaccacaaa cagtgatagc ttcactgggt 720
ttaccctta tcaagaaaaa acaactctac agcctacctt aaaattcacc aataattcaa 780
aactctttcc aaatacgtca gatcccaaaa aagaaaatag aaatacagga atagtattcg 840
gggccatttt aggtgctatt ctgggtgtct cattgcttac tcttgtgggc tacttgttgt 900
gtggaaaaag gaaaacggat tcattttccc atcggcgact ttatgacgac agaaatgaac 960
cagttctgcg attagacaat gcaccggaac cttatgatgt gagttttggg aattctagct 1020
actacaatcc aactttgaat gattcagcca tgccagaaag tgaagaaaat gcacgtgatg 1080
gcattcctat ggatgacata cctccacttc gtacttctgt atagaactaa cagcaaaaag 1140
gcgttaaaca gcaagtgtca tctacatcct agccttttga caaattcatc tttcagaagg 1200

ttacacaaaa ttactgtcac gtggattttg tcaaggagaa tcataaaagc aggagaccag 1260
tagcagaaat gtagacagga tgtatcatcc aaaggttttc tttcttaciaa tttttggcca 1320
tcctgaggca tttactaagt agccttaatt tgtattttag tagtattttc ttagtagaaa 1380
atatttgtgg aatcagataa aactaaaaga tttcaccatt acagccctgc ctcataacta 1440
aataataaaa attattccac caaaaaattc taaaacaatg aagatgactc tttactgctc 1500
tgcctgaagc cctagtagca taattcaaga ttgcattttc ttaaatgaaa attgaaaggg 1560
tgctttttta agaaaatttg acttaaagct aaaaagagga catagcccag agtttctgtt 1620
attgggaaat tgaggcaatg gaaatgacag acctgtattc tagtacgtta taattttcta 1680
gatcagcaca cacatgatca gccactgag ttatgaagct gacaatgact gcattcaacg 1740
gggccatggc aggaaagctg accctaccca ggaaagtaat agcttcttta aaagtcttca 1800
aaggttttgg gaattttaac ttgtcttaat atatcttagg cttcaattat ttgggtgcct 1860
taaaaaactca atgagaatca tggtaaaaaa aaaagttaac caaagaatat acctgtacat 1920
aatttgtaca gttttaagtt gttagatagg aactggattt cttatgtatt agacattatt 1980
gctcaatcat aatggaatag attctgcac cctaaatgta tgaaccataa ggttaaaaaa 2040
gatgaatgga aatatcaaac aacttttcac tgagcatcag tttcataatc aataatataa 2100
gaagattaat ttggattcta gtatgtttca gtttgttttt aattaccacc ttcctttggt 2160
agaaaaaata tgttccttga tgtaggaaag tctaggtttt agagattaga ggatgagatc 2220
aagagttaaa ttcctaaaga agcactgaat atatgaagag agcaaacaaa tcaagtacca 2280
acctagaggc tttatttttg aattgattca tgggtgtgtgt gtgtgtgtgt gtgtgtgtgt 2340
gtgtaacaca gaaacagctt cagaaaataa gggatagaaa gtaatgaaga aagtacttac 2400
cccatattgc cataaaaata gcaaagaaga ctgtccctcc attatcgaac aaatatgtca 2460
cctgagtaga aaacaaacag aaatattagt catgcaaatt gattataata agccagtga 2520
tactgtttgc actcaggtac tatgattttt tctcaaataa aatcatatta ttttatagta 2580
cagaaatatt atatatgaat tcctttcatg ggtcttgcaa caatttcaca tgatttttct 2640
catggggaga ggtgaagaaa caacattagc cctcttctct cctctcttga ttccctttat 2700
acccaccat catttctgat tataaataat tctaccattc tatggaagta tttgtgggtc 2760
acagattgtc aaactactta atgaaagttg tatgaaatta gtttttcagg tgaggcattc 2820
ctagttgcaa ttcctgttag caaaacttct aggagtgggg aagttgaaa atgcaggatt 2880
cttccagtga gccagcattt cccatagcta accctattct cttagtcttt caaatgtag 2940

aatgggtcca ataatggcta taagatgtaa taaatcccat cttaatttgt tttaaaagtt 3000
tcataaatca ctgaacactt atgaaacaaa gtgtttttta atcagataatc aactgaaact 3060
tcataaagga tgcatagttt tataatgtta ttgaatcaaa ttttaaggct tgtattgttt 3120
gattttaata aagtataaat tcaattt 3147

<210> 1589

<211> 3589

<212> DNA

<213> Homo sapiens

<400> 1589

cattttaaaa cagcagagtt tgtgaaaggc agcagaatcc cgctcccat gcttgccttc 60
gggaccctca ctggagcaga accattgctt agagcgtgag aaggagaagc gagtgtccgt 120
caacatgctg gctctgggtg agacctgat gttcctgggt cgccgggaca gcagctcgaa 180
gcagctgggt ctctgtgtcc actttccttc tctgaacgaa agctcggccg aggtgctcga 240
atacaccatt aaggaagaaa agtcgatatt gtacctggaa ggctcggctc ttgtgtttga 300
ggacatcttc agattgattg cgttctactg tgtcagtaga gacttactgc cttcacact 360
gcggtaccc caggccatcc ttgaggccag cagcttcacg gacctgaga ccatcgccaa 420
cctgggtctg ggtttctggg actcctcgct gaatcctcca caagaaagag ggaagccagc 480
agagcccca agagaccggg ccccggtatt cccctagtc tccagcctca ggcccacagc 540
ccgtgacgca aactgtgcct gtgaaatcga gctgtcggtg ggaaatgacc gcctgtggtt 600
tgtgaatcct attttcatcg aggactgcag cagcgccctg cccaccgacc agccacctt 660
tggaattgc cctgcacgcc ctttgccgcc cacctctgat gccacctcac ccacctccag 720
gtgggcccc cgcgcccac caccctctcc cccagtgtg cccctgcagc cctgcagccc 780
agcccagccc cctgtgtctc ctgtctttgc ccccgcccct gcctgtcctt tgcccacctc 840
tccccagtg cctgcccccc acgtcacacc ccatgcccc ggtccccag accatccgaa 900
ccagccgccc atgatgacct gcgagagact cccatgcccc actgcaggcc tgggccccct 960
cagggaggaa gcgatgaagc caggggcagc ctccagtccc ttgcagcagg tccccgccc 1020

gccactgcct gcgaagaaga accttccac tgcccctccc agacgccgcg tttccgagag 1080
ggtgtcctta gaagacaaa gtccggggat ggcggcagag ggggaccagc tcagcctgcc 1140
tccccaaagg acctcagacg gccctgagga cacgccccgg gagagcacgg agcaaggcca 1200
ggacacagag gtgaaagcca gcgatcctca cagcatgcca gagctgcca ggacagccaa 1260
acaaccccc gtcccgcccc ccaggaaaaa acggatctct cgacaactgg cctcgaccct 1320
cccagctccc ttagagaacg ctgagctctg ctcacaggcg atggccttgg agacaccac 1380
gccgggtcca cccagagagg gccaaagccc tgcttctcag gctgggactc agcacctcc 1440
tgcccaggcc actgcccatt cccagagctc tccagagtgc aagggtccc tggcctccct 1500
ctcagacagc ttgggggtgt ctgtcatggc caccgaccag gactcctact ccaccagcag 1560
cacggaggag gagctggagc agttcagcag cccagcgtg aagaagaagc cctccatgat 1620
cctgggcaag gctcggcacc ggctgagctt tgccagtctc agcagcatgt tccacgcttt 1680
cctctccaac aaccgcaagc tgtacaagaa ggtggtggag ctggcgcagg acaagggtc 1740
gtactttggc agcctggtgc aggactacaa ggtgtacagc ctggagatga tggcgcgcca 1800
gacctccagc acggagatgc tgcaggagat tcgcaccatg atgaccagc tcaagagcta 1860
cctgctgcag agcaccgagc tcaaggccct ggtggacccc gccctgcact ccgaggagga 1920
gctcgaagca attgtagagt ctgccttgta caaatgtgtc ctgaagcccc tgaaggaagc 1980
catcaactca tgctgcac agatccacag caaggatggt tcgctgcagc agctcaagga 2040
gaaccagtta gtgatcctgg ccaccaccac cactgaccta ggtgtgacca ccagcgtgcc 2100
ggaggtgccc atgatggaga agatcctgca gaagttcacc agcatgcaca aggctactc 2160
acctgagaag aagatctcca tcctgctcaa gacctgcaa ctcactctac actccatggc 2220
cctcggcaac ccagggaagc cctatggggc ggatgacttc ctgcctgtgc tcatgtatgt 2280
gctggcccg cagcaacctca cggagatgct tctcaatgtg gactacatga tggagctcat 2340
ggaccccgcc ctgcagctgg gggagggttc ctactatctg accaccacct acggggccct 2400
ggagcacatc aagagctacg acaagatcac ggtgacccgg cagctgagtg tggaggtgca 2460
ggactccatc caccgctggg agcgccggcg tactctcaac aaggcccggg cctcccgctc 2520
ctccgtacag gacttcctc gcgtgtcgta cctggagccc gagcagcagg cgcggacgct 2580
ggcgtcgcgg gcggacaccc agggccaggc gctgtgcgcg cagtgcgcgg agaagttcgc 2640
ggtggagcgg ccgcaggcgc accggctgtt cgtgctggtg gacgggcgct gcttcagct 2700
ggcggacgac gcgctgccgc actgcatcaa gggctacctg ctgcgcagcg agcccaagcg 2760

cgacttccac tttgtctacc ggcccctgga cgggtggtggc ggcgggcggc ggagcccgcc 2820
 ctgcctggtg gtgcgggagc ccaacttctt gtgaggccct cccggggcgc ctcccctcac 2880
 ccccaggcgc acgtctggcc ccgcctctgg ctgcgcactc ccgaccgcga cgtccacgca 2940
 gcagagggac atgggccatt ccatgacgtg cccaggccaa cgtcgcagga cagttgtgaa 3000
 aataacatga cgctcgtcca aggccacttc ctgagggcaa gtcctaatag ccctgagaca 3060
 ccgagacggc atgtttctca ttagacggaa agggaaactg aggctcagga gagaggcgct 3120
 ccaggccgct gcagccaaca aaccggcgcc ctcttcacac gtagctcttc aggccattcc 3180
 ccatgagtcc cccacacca ccccatcttc ggtctttgca aagaagggcc cgagcttagt 3240
 ttccccagga ctggcctagg aaggagcacc ggccacagct gctccccgtg ccactcaggg 3300
 tggaccagc atctcaggag cacctcaggg tgtcgggttaa gagacaggcc tccaccctg 3360
 caccagagcc tgctcttagc tcccggtgcc cccagacccc gcagctctgt gcccggcaag 3420
 aagcagctag acacacgcca gggcgccaag cacggccagc tccgcggacc catggacaag 3480
 cccagccccg cctcaggga aacagggcct ttccctacag gacacgcccc agagctgtgg 3540
 cagattgcag gagccatcgt gtggggagaa ttttaataaaa gcccttttg 3589

<210> 1590

<211> 3178

<212> DNA

<213> Homo sapiens

<400> 1590

gtgaaagaag cacatttga gaaagaggag aagaggccca ggtgttctgt ggctcagggg 60
 caagctctga gctccctgag caatggcccc atgctccggg actcagaggc cgaggttact 120
 gaggaggatc ccaggctgcg ggcccagcag ctccatcacc ggggtgctgac cctgcagtgc 180
 cagctcaggg accaggcgcg tgcccaccag gcgtctctgg acgaggccac ccgcctccag 240
 gaggagctcc aggccaagct tgaagaactt cagaaaaagc aacatgaagc aaagttggca 300
 gtgactcccc tgaaggccaa gatagcttcc ctcgtccgga agtgccggga gaggaaccgc 360
 ctgatcacc acctgctgca ggagctgcac agacatgggc tggggaacct cctgctctcc 420

gagctggcgc agaacatgct caacgacgtg gcaactggctg agtacacggc caccttcctg 480
gctccgggag tcccagagac aagccaccac ctggacgtca agtctgagat gacggcagct 540
ttaagagctc agacatacct cttgaatcct gaaatggaca gtgtcctcca aagctcattg 600
tcttcagagt cctggcctat tcccagaccg gagtggccag cacagacagc ccaactggat 660
tctctgaagc tccctctgtc cttggtgtcc acgcttgatc ctggaacgtg cctggcagcg 720
gtcactgtgg aaccaggtct ccccgacaaa cgtctgcaag aaaaaggcgg aatgcctgt 780
cctgccctcc aagtcgataa cgtcccagca ccctctgagc tcctgagccc agcaaggatc 840
ctggcttttc accaagagct tagacaaaagc atttgacgca attcccaggt ccataaatca 900
ccgctggagt tagaaatgta atagggccac tcattctccg gagccatttc atagactcca 960
taaataatttg aagcagaacc ttcagagagt gctttaagaa attggtagca atcagagccc 1020
tcatttagtg gcaagtgggtt ttgccttcgg ctttgggatt ttgtgttcat tgctcagagct 1080
tgagagaaaac gctggcctgt gcctggcaaa ttctgaggag tttggctttg gcaatgtcaa 1140
ggcagcatag gaaatattta ctgtacaaaa acctattgaa tgatttgtcc agaggttctc 1200
aactgggcac agtttttagcc cccagggaa aatctggcca tgtctggaga cttttttggt 1260
tgctcacagct gggacactgc tactggcatc tgggtgggtag aggccaggga tgctatgaaa 1320
tgctctacaa taccagggcc agcctcctac agcaaagaat tacagcccga gggctgccag 1380
tgctgaggtc gagagtccag gacggatctc atagctccca acaagatcag ccatggagaa 1440
ttgttttgtt ttgttttttc tctgcccccg gggctccttc catgttttaa aagatttttt 1500
gtctactaag tgaaacgcct aagtcacat atattttaca tttaaaaaca ttaaaactaa 1560
ccagaacttt ctaatcagtc catccactcc aaaaacgtct gttgatatcc actggatgcc 1620
aggcaatgtg gcatgaagga gaagagacaa gtcaatgttg atcctggcgc tggggacctc 1680
acaggacaat gggagagata ctctgtgag taaatcagca cgcacgcaag tgctacatgt 1740
gccctgagca acgggatgaa ggtaagggtc cgttctactt ggcttgggac aactggaagt 1800
cagccacaaa ggaatggctg ggcagtgtcc ggtgggtgag gtgggaaggg tgctgctgta 1860
cgagggaacg catgtgcaaa ggccctgagg cataaaaactg aactgtggat gtgccctgg 1920
aggggaagtg ggcaaagcat gctcttgtca agccagctgc aagcagtcac tgcatcgttc 1980
ccatccagca ccccttcctt ccaccgagaa cagagactcg tgccccgaat caggtgggcg 2040
acccaggaga agagcacttc tatcctgagg gcagcccccc aaaaagagag tctagggagc 2100
ttggacgaca cacaccagac cctgaccag gctcaccac cagagatgtc acctctctct 2160

ttgggaaggg gctgaggagg ggcttaaggg aaaggccaaa gccgctacct gtccaattct 2220
 gtcctctcct ggaagtgact gtcccttcac ggaaggacaa acaaggacaa ggacaaggaa 2280
 ctgacggctc cccaggaagt gtcaaagtgt atagatttat tttaacgtag tttagctttt 2340
 tgtttgaaat gaaaattaca cagagttccc gtagactctt ccccgggctt cccttgatgt 2400
 taacatctca tgtgacttat gttgtacaat tatagaaact agtgggtttt atttcgagga 2460
 aaattgggga gccattgaga cgtaagaaag gcagcctcag cacattgagt tccacccttt 2520
 aaattcgttt atgggggttt ctgatgggtt agcacattca tccatgtatt cctggattga 2580
 tttaccaca gatctgtcta tttatttatt tattcaatat gcatttagtg actgctgtgc 2640
 gagtgtctgg ctggatgctg ctggggaaga agtgaagatg atgctgtcca cctaggtttt 2700
 cagggacccc cctggagacc ctgtggcccc gttaccaccc ctcaagaatc cccagattgg 2760
 aaaccactgc ggtgatccct ttgttggttc aaccaccca gggcttcct ataatttcca 2820
 agcaggaagt gacctgcagc actggtttgg tgatccgcct tctgcctccc tctgtatttt 2880
 gggacaacgt cattagcttt gagcatcagg aacatgacag agagaggaca gaaaccggt 2940
 gcagccgagg acagccagct gagcccttgc tgagccagcg agatgcagcg tgggtgccacc 3000
 acatctggtc tccaggagtc ccaggagctc agacgtccgt cgtcttgtga cttcatgctc 3060
 ccctctgccg cgctcacgtg ctgggcctgg gcagaaaggc aaccagga atccattaaa 3120
 gcaagccaag acgaccttg cagcgtaacc caacgattcc ctaataaatc atgtttcc 3178

<210> 1591

<211> 4250

<212> DNA

<213> Homo sapiens

<400> 1591

acttcagtgg cggtcatttt tgcagcgctt ggggtgcatcc agaccgtcag agctttggga 60
 gcgctttgtt tggcgacagt cggaaggcgc gaggggaggg gtcctccgc tgaacagtgg 120
 gggttctaag ggtcggcggc ggcggggttg acggctttgc ctaggtccct ccgcccgtag 180
 ctgtcgggtc ccggccccgc tctgcccaca gactccgatg gctgcggccg cgctgagggc 240

cccgactcag ggctgtgtga cttttgagga catcgccatt tacttctcac aggacgagtg 300
gggacttctt gatgaggctc agagactcct gtaccttgaa gtgatgctgg agaactttgc 360
ccttgtagcc tctactgggtt gtggccatgg aacagaggat gaagagacac cttctgacca 420
gaatgtttct gtaggagtgt cacagtcaaa ggcaggttca tccacacaga agactcaatc 480
ctgtgagatg tgtgtcccag tcctgaaaga tttttgcat ttagctgatc tccctgggca 540
gaaaccatac ttggttgag aatgtacaaa ccatcaccag caccagaagc atcacagtgc 600
aaagaaatcc ttgaagaggg acatggacag agcctcatat gtgaagtgtc gcctattctg 660
tatgtcattg aagccctttc gcaaattggga gggttgaaag gaccttcag ccatgttgcg 720
gcttctgagg tccctggtct ttcttgagg caagaaaccc ggcacaatta ctgaatgtgg 780
ggaggacatt cgcagtcaaa aaagtcatta caagtcaggt gaatgtggga aggcttcag 840
gcaccaacac actcctgttt accatccaag agtctacact ggaaaaaagc tttatgagtg 900
tagcaaatgt gggaaagcct tccgtggcaa gtactcactt gttcagcacc agagagtcca 960
tactggagaa aggccttggg agtgcaatga atgtggaaaa ttctttagcc aaacctcca 1020
cctgaatgat catcgagaa tccacaccgg agaaaggcct tatgagtga gcgaatgtgg 1080
aaaattattt agacaaaact ccagccttgt tgaccaccag aaaatacaca ctggagcaag 1140
gccttatgag tgtagccagt gtgggaagtc ctttagccaa aaagccacc ttgttaaaca 1200
ccaaagagtt cacactggag aaaggcctta taagtgtggt gaatgtggga attcctttag 1260
tcaaagtgcc attcttaatc aacaccgaag aattcacact ggagcaaagc cttatgagtg 1320
tggccagtgt gggaaatccc ttagtcaaaa agctaccctc attaaacacc agagagttca 1380
cactggagaa aggccttata agtgtggtga ctgtgggaaa tcctttagtc aaagctccat 1440
ccttattcaa caccggagaa ttcatactgg agcaaggcct tatgagtgtg gccagtgtgg 1500
aaagtccttt agccaaaagt ctggtctcat tcaacaccaa gtggttcaca ctggagaaag 1560
gccttatgag tgcaacaaat gtgggaattc ctttagccaa tgctccagcc tcatacatca 1620
ccaaaaatgt cataacacat agaggcctca tgaatgcagc aaatgtggaa gcgccttcaa 1680
ctcaagatct atcatcattt agctcctgaa agtccacact taagtagagc cttagaccta 1740
cagggaaagt gctgtctctg tagtattgta gcagtagaga gcctttgtga gggagccatc 1800
tgctgaagt tgaacctcat tcttccttgt ttctctggta gaaacctct accctctacc 1860
accttgaca gtgggcactg gtcactccta tgtgctaaga caaggcagac atctgtgtgt 1920
tctcttaagt ctttgaggga aatcttgagc agtctaagcc tttagagaaa attcattctt 1980

ttttctgact gatcagcata cgtgtgaccc agtttgggtc aggagggccc agccttggtt 2040
ctgctggaca cttatgtgca aggattccct tcatgtaaat tcttggcttc acatgacact 2100
tggtcattct tccagcctcc atgtcaccac gtggtgaatg gctgcctcac attgctccag 2160
tttgtgact aataaaagcc ttatatitga atctacctgt agtcttgggg ttctgtttac 2220
tgtgtgggggt ggctgggaga cagacttcaa ctctatatga aggaatggat ggcttttgtg 2280
ggcctctgca ggaaagtaag atgacagagt aattctaatt ctggtttttg tcatacttgc 2340
tttgctacct aaaatctcct aggaaaaaat gcaaggtttt ggttattcta atttgtggcc 2400
tggatcccta ttctttctgt gagactagag gtcactctga ggagaggcca gctgttatga 2460
caagcatgtg tgcttcaggg aataggacaa ttttattcca ttgtttccag aggatgtcat 2520
atgatgccca gtgctgctga gaagcttttc atggggttct ataaggaggc atgccctgat 2580
atcaaacatt ccataggccg atgtcacgca gaagacaacg cgagtcacat gtgaactgta 2640
attggtacag aaatacctgg gtatttctgt actgtgtgta ctgtagcaaa ctagttggaa 2700
tgtgcctctt ataaaagtac atttacaat cttcccgtga ctgtggcttt gagcagtcac 2760
aggacctaga aatctgtgta tgtccaatag ctgaggttat tttcagcaaa aataattaaa 2820
gggttttatt ttttaattct tgttggtttt ctaggttggt cacctcaagt gcattgctgt 2880
agaggcagaa aaaggaggat aaagataaca gaagtcctat aggccaggga tgtattgata 2940
gctcttgtga tttccaccag tgttgcgtgt gtctcaaatt gccacagcct tcattgcttg 3000
ccaacatttc ctgcatggag ggactcatgg ttgcccttcc ccaggcctga agagagagtg 3060
cagtcaacat gagattgcta ggcattctgg tttctgaaag ttgggtgatc agatacttta 3120
ttgtgaaaca tgttttaca actttcttga tgtgtaagt acatgccata gtttacatcc 3180
atttatgggt tataatttga agagtttgtc atacaagcct gtgaaacat aatcatgatc 3240
atgaacatat tcatgattca cctcttgctg ttttacaatc tctgcgtgta ctttccaggc 3300
cttcaggagt cctgtcattt actttcccta caggagaata gtttgtgtt tctaggattt 3360
tatgtgaatt gaaacgtaaa atacttactc catttttcct gatgatgcac aatttttttt 3420
ttttttttga gatggagtct cagtctgtca ccaggctgga gtgcagtggc atgatcttgg 3480
ctcactccaa cctcctcctg ggttccagcg attctcctgc ctccagcctcc tgagaagcta 3540
ggactacagg catgcactac cagcccaac taatttttgt atttttagta gagatgtgg 3600
tttaccatgt ttgccaggat ggtcttgatc tcttgacctc gtgatccgcc cgcctcagcc 3660
tcccgaagt ctgggattac aggcgtaagc caccacacca gctgatgcac aattactttt 3720

aagatttatac aatattgttt atgtgaatag ttcatttgta ttgctgagaa atagtctgtg 3780
gatatgtcac aatttgata aacagttgga tgctttccag ttttgggctg ttgcaaataa 3840
tgctactatg aacataggca tataactctt aatatgcaga aatgctttat ttctcctgtg 3900
tcagtagtac agtgtacgtg aatgcgtcac ttttaaagac aaggccagac tataacctaa 3960
ctgtaccatt tgcattctca tcaacagtat gtgaaccttc ttatttctct acattcttgc 4020
catacttggg atggttagtc tttttaattt tagttgtttt aatagctgta taatagcatc 4080
tgtctgtgat tttattgcat ttttctggta ttttatggta ttgaacattt gaacatcttg 4140
tatctagtgg ccacctgtat atcctctttg gaagaatgtt tattaatgtc ttttgcttat 4200
ttttaaatgg atgttgggtga tactttttca ttaataaata gacgtataac 4250

<210> 1592

<211> 4524

<212> DNA

<213> Homo sapiens

<400> 1592

attcacactg ttgcaggcgt gcaggtcggg ggtgttacat tcatgctgtt gcaggcgtgc 60
aggtcagtgg tgttacacac attcacgctg ttgcaggcat gcaggtcggg ggtgttacac 120
acattcacac ttgcaggcgt gcaggtcggg ggtgttacac acatgctgtt gcaggcgtgc 180
aggtcagggtg tgttacattc aactgtttgc aggcgtgcag gtcggtggtg cacacattca 240
cactgttgca ggcgtgcagg tcgggtggtg tacacacatt catggtgttg caggcgtgca 300
ggtcgggtgtt acacacatgc tgttgcaggc gtgcaggctg gtggtacatt catgctgttg 360
caggcgtgca ggtcgggtgg gttacacatt ttcacgctgt tgcagacgtg caggtcagtg 420
gtgttacatt catgctgttg caggcgtgca ggtcgggtgg gttacattca cgctgggtgca 480
ggcatgcagg tcgggtggtg tacacacaac gctgttgagc gcgtgcaggc cagtgggtaca 540
cacattcacg ctattgcagg cgtgcaggcc ggtgggtgta cattcacgct gttgcaggcg 600
tgcagggttg tgttacacac attcacactt gcaggcgtgc gggtcgggtg tgttacacac 660
attcatgctg ttgcaggcgt gcaggtcggg gttacacaca ttcacacttg caggcgtgca 720

ggtcggtggt gttacacaca ttcacactgt tgcaggcgtg cagggtccgtg gtgttacaca 780
catgctgttg caggcgtgca ggtcgggtggt gttacattca cactgttgca ggtgtgcagg 840
ttggtgttac acacattcac actgttgcag gcttgcagggt cgggtggtgtt acacacattc 900
acacttgcag gcgtgcagggt cagtgggtgtt acacacattc atgctgttgc aggcatgcag 960
gtcggtagtg ttacacattc atgctgttgc aggcgtgcag gtcgggtggtg ttgcacattc 1020
atgctgttgc aggcatgcag gtcgggtggtg ttacattcac gctgttgcag gactacagggt 1080
cagtgggtgtt acacacattc atgctgttgt gcagctatca cttccatctc cagagccctt 1140
ttcatcttaa aactgaagct ctcccatcac acagtgaccc ttcatgtccc tccccagtc 1200
ctgaaaaaca ctgttcagggt ttttcttctt ggacctcatt gtgtggagtt cctcgtgtga 1260
gtgcagtcac acacgatttg tccttttttt gttttcgttt gttgagacag agtctcattc 1320
tgtcactcag gctggagtgc agtggcgtga tcccagctca ctgcaacctc cactcccagg 1380
ttcaagtgat tctcctgcct cagcctccca agtagctggg attacaggcg cctgccacca 1440
cgcccagcta attttttgtt ttttattaga gacagggttt caccaagttg gccagactgg 1500
tctcaaactc ctgacctgt gatccaccg cctgggcctc ccacagtgt gggatgacag 1560
gcgtgagcta ccacaccggt ctgatttatt cttttatttg ggctcctttc actcagcgtc 1620
tttaagcttc atacgcgaaa gatgcttcag agattccttt ttcaggctga atatctgctg 1680
cgtggctagg ccactttttg tttaatcctc tctcctctgg tggacaccag gactgtgctg 1740
ttttgggttg tgtaagcgcg ggtgcacacg cctgcctgag gctgtgtttt ggccgttgtg 1800
agtgtgggtg cacacacctg cctgaggctc tgctttgttg tgagtgcggg tgcacacacc 1860
tgctgaggc tgtgttttgg gtgttgtgag tgtgggtgca aacacctgcc tgaggctgtg 1920
ttttgggtgt tgtgagtgtg ggtgcacaca cctgcctgag gctgtggcgc gatctcggct 1980
cactgcaacc tccacctccc gggttcaagc gattctcctg cctcagcctc ccgagtagct 2040
gggaccacac ccaccaccac accccgttat ttttttgtat ttttagtaga gatgggggtt 2100
tgccatgttg gccaggatgg tctggaactg acctcagggtg atccaccac tggcctccca 2160
aagtgtggg attacagggtg tgagccactg tgcccggcct ctttttactt tgttaatggt 2220
gtattttgat agataacaga ttgtcatttt catgaagcac agctggtcag tttattgttg 2280
ctcatgtatt tggcctcatg ttcgagtccc tgtttttaat catgagctgg acacagccct 2340
ctttagagca actgtgacca cttgtgggtga gaagtgcagc ccacaccatc cacgtgaggc 2400
tcccacacgc catccacgtg aggctcccat gcagacattt agaaggcgtt ttcactgcag 2460

ctcagaaaat ggccccaggc ccccatgggc acccccatgt caccagggcc tctggttgct 2520
gccggtacac agggataggc agccaggcct cgaaggtgct gggcatgggt ttgggtgtct 2580
gcgttgggta gagaccgga gcgcccttgc tgggcgtgcc ctaacatccc ggtaccctgt 2640
gcccctctgt gggccaggac gcctggtgct gccagctggg cgtaagccct gaggagctga 2700
gggtggctgt gacttggagg atgagtagga gctcaccagg agggcgtgga gccgaggcgt 2760
ttaatatcat caggagcaac actgggctca gaaggcaggc acacttgccg tccctccaga 2820
gccatggctg acggccaggc ctggtgggct ctcgtgagga cagtgcctgt ggttgtcaga 2880
tgctgtccct tcgagtaagg gatgagagcc atcctgaaga tgggtcagct ctgtggtgac 2940
caccgttgg gagcagtac attcaggtgc gttgcactgg tggctgtgtg gctgtgtggt 3000
acggccacca ggagccatgt gggcaaggac agctgtgggc tgggcacaga gctctctctg 3060
ctgggagtca gtcggtgctg gggcgagggg aggcagagct cacagagccc ctctacagct 3120
caccctgcag ctcggccctg gccagtaaac ccaccatccc cttttctgcc gcaggaggca 3180
gtggagaagg tgacacagca catccacggc ctgtctggga agaaggatgg gctggtgccc 3240
atgttcatca ataccacag tggcctcttc acccacctgg gcgtattcac gctgggcgcc 3300
agggccgaca gctactatga gtacctgctg aagcagtgga tccagggcgg gaagcaggag 3360
acacagctgc tggaagacta cgtggaagcc atcgagggtg tcagaacgca cctgctgcgg 3420
cactccgagc ccagtaagct cacctttgtg ggggagcttg cccacggccg cttcagtgcc 3480
aagatggacc acctggtgtg cttcctgcc aaggacgtgg ctctgggcgt ctaccacggc 3540
ctgcccgcc a gccacatgga gctggcccag gagctcatgg agacttgta ccagatgaac 3600
cggcagatgg agacggggct gagtcccag atcgtgcaact tcaaccttta ccccagccg 3660
ggccgtcggg acgtggaggt caagccagca gacaggcaca acctgctgcg gccagagacc 3720
gtggagagcc tgttctacct gtaccgcgtc acaggggacc gcaaatacca ggactggggc 3780
tgggagattc tgcagagctt cagccgattc acacgggtcc cctcgggtgg ctattcttcc 3840
atcaacaatg tccaggatcc tcagaagccc gagcctaggg acaagatgga gagcttcttc 3900
ctgggggaga cgctcaagta tctgttcttg ctcttctccg atgacccaaa cctgctcagc 3960
ctggatgcct acgtgttcaa caccgaagcc caccctctgc ctatctggac ccctgcctag 4020
ggtggatggc tgctggtgtg gggacttcgg gtgggcagag gcaccttgct gggctctgtg 4080
cattttccaa gggcccacgt agcaccggca accgccaagt ggcccaggct ctgaactggc 4140
tctgggctcc tcctcgtctc tgctttaatc aggacaccgt gaggacaagt gaggccgtca 4200

gtcttggtgt gatgcggggt gggccgacca gaggggggct tcgaggtggt ccctggtact 4260
 ggggtgaccg agtggacagc ccagggtgca gctctgcccg ggctcgtgaa gcctcagatg 4320
 tccccaatcc aagggtcttg aggggctgcc gtgactccag aggcctgagg ctccagggtc 4380
 ggctctggtg ttacaagct ggactcaggg atcctcctgg ccgccccgca gggggcttgg 4440
 agggctggac ggcaagtccg tctagctcac gggcccctcc agtggaatgg gtcttttcgg 4500
 tggagataaa agttgatttg ctct 4524

<210> 1593

<211> 3053

<212> DNA

<213> Homo sapiens

<400> 1593

tttgttttac ctgctcagt ttctgaactc cttccttttc actactaagc atcctccatg 60
 aagccacact tcattttgtc attgtgaggt tgatgggcat ctagggcaaa tctaacttct 120
 aaagaccaat tcttacagg tgtcatggtc aagcagaggc catggccggc actggtctag 180
 gtggcccatg gcccatgttg gggccttggt gggcctcgag gaagggcagg tgctggctcag 240
 ggagccgggt cgctaggcag caggtgggtg tcacccagc ccacgtgct ggggtgcctg 300
 gcctgatgca ggctgtgcct gagggagaca gaagcagcag agtaggctgg ccggcctccc 360
 cagccccacc acaagcagga gcttcagaga cagaaggagc acctgcacc cctcacctgc 420
 cctccagggc ctggcctggc cctcccagct caactccagg gtctgtacgc tctggggctg 480
 gagcttagtg ggagtgtggc cccctcagc cctttctgca tttgagtga agccagtgtg 540
 cgaagcagat caaatggat gtgcttggtt ttccttcagt aagaacaggg agttgagcct 600
 gtcccaacat ggccagcagc ccctggaggg ccaacagact tcacgagcaa ggaaggccgg 660
 gaggtgacct gctgaccaga acttacttgt gcccctcccc cccgccccaa accccaaca 720
 ttctggtttt cacagcccca cccagccac ctggaacaaa tagtgtctag gagtagccct 780
 cagggttggc cgcgcagact tcctgccctg ggatgaggct ggcctccca ggcgaggcag 840
 cctgggccac aggggaacgt ctctgcctcg cccaccctcc tgatctctcc atcagacaag 900

ctgaggccag ccaggctcca ccctggcagg ttgcaacaga tggctctgagt gtgtgtgaag 960
taactggcct ctctactttc ttcaataagt aattaagatc aaaagcccag agaaaaacaa 1020
cagaggtttg cggcagaagt ggccaatgtc gggcccagag tccatgtctca aggctggaag 1080
cccatcctgg atgtgtctgca ctcggcagtc ctagtgtaat tctgcagggc ccggcccctg 1140
ccagggtctg agctctccag cctgtggcat ctactcccct ccaagcccac ccagtggtct 1200
caattggaga gacaggccct catggteccc actctggccc agccccctct gcacacagct 1260
ggccgagctc tgggcctctc catgctgttg ccctgggtgat ggcagagcct tgggatgtct 1320
ctgtccatgt ggtcacagga catgtgtgtg gcagcagggc catggtgggg tgggatgtctg 1380
ttccaaggcc cagaaccatt ctgtaagaaa ccagcacagc gctgcaagaa agggggctct 1440
aggggacaca ggccacacag gtgtgctttg aaaaatggca attaaggtca aagagcagga 1500
agtccacagg acgggccaag gccaaaggctc ccgctggcca tggggaagcc acctccaggg 1560
cagtcccagg gactgaatta gaagttgtcc caagtcactt caggtccaac tgggacagca 1620
gaggtaaccc ccctgcaccc tcatggggca gcttctttgg gtcctaatg tggactcaga 1680
ggtggaaacg gtctgtgtcc ccaggctctg cagacattcg ctttgtctgg gagaagaatg 1740
ggcgagctct ggagacctgt gtccctgtgc agacccatgc actgcctgat ggcagggccc 1800
atgcactcag ctggctgcag gacgccatca gggaaagcgc tgagtatcgc tgctctgtcc 1860
tctcctcagc agggaacaag acttcgaagg tgcaggttgc tgtgatgaga cctggtaagt 1920
gattcccatg cccactgtta cccttttatg aggtaatttt tcactattta caatggcagt 1980
gaaaaaaaca gctggaaagc atgcttgac ggtggcattc tgggtttggg atttattggc 2040
tttccattga gaaaggtggc cagtgggcat caagggtgcc ataaaggccc acagagcttt 2100
gacctgggga ccctgcttgt tttccagaag tgaccacca ggagaggtgg accagagagc 2160
tctctgcctg gaaggctgtg gctggggagc acgaccgat gatgcagagc tggaggaagg 2220
cgtgggaaag ctgtagcaag gacaccctgt agccaccagg aaggagtccc tgacaccgac 2280
ctcaaccca acaagaccct gctgccactg accacagcca cccccggaga aggcctggtc 2340
ccccacaact gtgaactgtc ttgcccaagc ctgctctgaa cacagccatt gggccaccac 2400
ctgatgggca gaggcgggac agtgagaaag cctggaaccc aagtgggcct gtgacaggaa 2460
ctaagactta aaaaattagg tgcttacctg ggacagtaag ttctgtctgg cacaagcagg 2520
taaccaggat ggctaacagg ctttgatagc tgctcgtgaa ctaaaacagc aggggtgtgtg 2580
caggttcctc ctctacggtc aggcagcagg ctctgaaggc tgatcctaca ccgtcccagt 2640

gactccccctt gacagagtgc cccaccccc taatagccaa cagggtagc atggccagca 2700
 cagatcgctg cttttattga tgcaaatcaa gcctgctgct tctcctccct gcagacttag 2760
 ccaaggaact ccaagatgca tgactgggac aagaaaaggt gagactccac atggaaatgc 2820
 cttgccctaa accttgaatg actgtgagat gcgatctggg agtgcactctg tcaagtcttt 2880
 gtgttttctt cactaacctc agaatactgg gctctatattt atcaagcgct gcagtttatg 2940
 cctctgtccc gtcaatgctc agcttctgca acaggacacc aaacttgatg cagaaagcca 3000
 aataggctcaa ttatgcaaat ctctggtgc catattaaat ttcttgacaa tgg 3053

<210> 1594

<211> 3248

<212> DNA

<213> Homo sapiens

<400> 1594

actcgttcta agagtttctg ggaggcagat gaaagtggg gagagcaaaa gacaccacaa 60
 gaagggatgg gagtgtgtt tatcacagta gagctttcgc agggttgggt agggcattgg 120
 gcccagcaaa gagggaggaa gagtaggacc ccagacatac cattgtcctt tttatggagg 180
 ggggggtcag ctttgttctc cctgtatgtg gctctgccat gcagttgggg gtctgggtctt 240
 ctgtcttggg gaggtgtct gtcaatctgt aactgggccc atctttttgc ttcttggcct 300
 tttctctttc ttctgtgctt acagtatcat gagcctccag aggacatcaa ggcactgtct 360
 tggaaccggc aagcccaaca cattctgtct tctgtcacc ccagtggcaa ggcagttgtg 420
 tgggatctca ggaagaatga acctatcatc aaagtcagt atcacagcaa caggggggat 480
 cttgtcagt tcatggagcc aggctgatgc tgagctgctg ctactagcg ctaaggacag 540
 ccagatcttg tgccggaacc tggggagcag tgaggtggta tataagctac caacacagag 600
 cagctggtgc tttgatgtgc agtgggtgcc tcgggaccct tcagtgttct ctgctgcctc 660
 cttcaacggc tggatcagtt tgtactctgt gatgggtagg agctgggaag tccagcatat 720
 gagacaggct gacaaggttt gaagggttg gtagagaatg ctggaggga ggggctgtct 780
 ctgtttgtgg gagagagaca tatggcttga gaagcggaga tattggagat tgggagacca 840

gggccccgggg tttgggaggg ctgcaccttt gccctagtgc ccatcttcct gaaaggatgt 900
tagtttctgc cacaatgtga agaaggcctt caccttgact cttgttattg gatgggcctt 960
gcagtatttc agggaccgtg ggaccccttt gctgggacag ttatttcaag agtatgactc 1020
ttatctttct ctctctata gatccatttt gtgccacact ccattgtaga ctttgaatgt 1080
agtagtcttt ccaagagcct acttgcatgg gagtcccacc ctgctacca ctacttccc 1140
catcccctgg aatatgggag tctgaccttt ctaggtcaaa ttgggtgtct caaggattcc 1200
tccccaaatg gagttttag gtggagttcc tgactaaact gccactttag gatggcgatg 1260
caggtgtctt tccccccag atctctctt ccttcagcaa aggccagcct ctcccaccac 1320
tgcaggtgcc agagcaagtg gcacaagcac cactgatacc tcccctgaaa aaacccccca 1380
aatggattag aagaccaaca ggtgtttcat ttgcttttgg agggaagctg gttacttttg 1440
gcctccccag caccctgcc catctggtgc cacagccttg ccccccgccta gtcttcatca 1500
gtcaagtcac cacagaatct gaattcctga tgcgatcagc tgagctgcag gaagccttgg 1560
gatcaggaaa tctactgaat tactgtcaga acaagagcca gcaagcttta ctgcaaagtg 1620
aaaagatgct gtggcagttc ctgaaggtga ccttagagca agactccaga atgaaattcc 1680
taaagctttt aggatacagt aaagatgagc ttcagaagaa ggtggccaca tggttgaaga 1740
gtgacgtggg gctaggtgag agtcctcagc ccaagggaaa tgacctcaac agtgacagac 1800
aacaggcctt ctgcagccag gcctccaaac acaccacaaa ggaagcctct gcttcctcag 1860
ccttctttga tgagctggtc cctcagaaca tgactccttg ggagatcccc atcacaaaag 1920
atattgatgg actcctaagc caggctctcc tgcttgggga actgggtccg gccgtggagc 1980
tgtgtctgaa ggaggagcgc tttgctgatg ccattatcct ggcccaggct gggggtacag 2040
atctgctgaa gcaaacacag gagcgctact tggccaagaa gaaaaccaa atctcctcgc 2100
ttctagcctg tgttgtgcaa aagaattgga aggatgtggt gtgtacctgt agcctgaaga 2160
actggagaga ggactggct ttgctactga catactcagg cacagagaaa tttcccgagc 2220
tctgtgacat gctgggaact cgcattggaac aggagggcag cagggcacta acctccgaag 2280
ccagactctg ttatgtgtgc tcaggagagtg tggagcggct ggtggagtgc tgggcaaaat 2340
gccaccaggc tttgtcccc atggccctgc aggacctgat ggagaaggtg atggttctta 2400
acaggagctt ggagcaactg cggggtcctc atggggtgag cccaggccct gccacaacct 2460
acagggtcac tcagtatgcc aacctcctgg cagcccaggg cagcctggcc actgccatga 2520
gctttctacc cagggactgt gctcagccac cagttcagca gctaagagat cggctttttc 2580

atgctcaagg ttctgctgtc ttgggccaac agtctccccc tttccccttc ccccgatttg 2640
 ttgtgggagc taccctccac tctaaagaga catcatctta cagattggga tcccagcctt 2700
 ctcaccaggt aagacctcgt ttgttcattc atttgttcat tcaataatac gtgccaagca 2760
 tggttctggg cacttggaat atattgtgaa caaaactgat gaaaattccc aacttcata 2820
 gaacatagat tcagttcttt ttataataaa taactgttta ttgaactact aggctcttag 2880
 gacataaagg tgcaaaaatt gtgatacttg ccctcaagta gctcatagtg tagtcgaaag 2940
 atagatatgt aaaaaatagc tacagtaggc ctggcgtggg ggctcacgcc tgtaatccca 3000
 gcgctttggg aggccagagc gggcgggtcg tgaggtttgg agttcgagac catcctggcc 3060
 ggcatgggtg agcccatct ctactgaaaa tacaggataa tgatctgggc atgggtggcg 3120
 gtgcctgtgg tcccagctac tcgggaggct gaggcgggat tgtcgcttga acctgggagg 3180
 tggaggttga ggtgggcccg ggtcgtacca ctgcactcca gcctggcaac ggagcgagac 3240
 tccgtctc 3248

<210> 1595

<211> 2780

<212> DNA

<213> Homo sapiens

<400> 1595

agacgtgacc cagggcagac tggtagcaaa gccccacgc ccagccagga gcaccgccga 60
 ggactccagc acaccgaggg acatgctggg cctgcgcccc cactgctcg ccctgggtggg 120
 gctgctctcc ctcgggtgcg tcctctctca ggagtgcacg aagttcaagg tcagcagctg 180
 ccgggaatgc atcgagtcgg ggcccggctg cacctgggtgc cagaagctga actccattcg 240
 ctgcgacacc cggccacagc tgctcatgag gggctgtgcg gctgacgaca tcatggaccc 300
 cacaagcctc gctgaaaccc aggaagacca caatgggggc cagaagcagc tgtccccaca 360
 aaaagtgacg ctttacctgc gaccaggcca ggcagcagcg ttcaacgtga cttccggcg 420
 ggccaagggc taccatcg acctgtacta tctgatggac ctctcctact ccatgcttga 480
 tgacctcagg aatgtcaaga agctaggtgg cgacctgctc cgggccctca acgagatcac 540

cgagtccggc cgcattggct tcgggtcctt cgtggacaag accgtgctgc cgttcgtgaa 600
cacgcaccct gataagctgc gaaacccatg cccaacaag gagaaagagt gccagcccc 660
gtttgccttc aggcacgtgc tgaagctgac caacaactcc aaccagtttc agaccgaggt 720
cgggaagcag ctgatttccg gaaacctgga tgcacccgag ggtgggctgg acgcatgat 780
gcaggctgcc gcctgcccgg aggaaatcgg ctggcgcaac gtcacgcggc tgctggtgtt 840
tgccactgat gacggcttcc atttcgcggg cgacgggaag ctgggcgcca tcctgacccc 900
caacgacggc cgctgtcacc tggaggacaa cttgtacaag aggagcaacg aattcgacta 960
cccatcggtg ggccagctgg cgcacaagct ggctgaaaac aacatccagc ccatcttcgc 1020
ggtgaccagt aggatggtga agacctacga gaaactcacc gagatcatcc ccaagtcagc 1080
cgtggggggag ctgtctgagg actccagcaa tgtggtccat ctcattaaga atgcttacia 1140
taaactctcc tccagggtct tcctggatca caacgcctc cccgacacc tgaaagtcac 1200
ctacgactcc ttctgcagca atggagtgc gcacaggaac cagcccagag gtgactgtga 1260
tggcgtgcag atcaatgtcc cgatcacctt ccaggatgaag gtcacggcca cagagtgcac 1320
ccaggagcag tcgtttgtca tccgggcgct gggcttcacg gacatagtga ccgtgcaggt 1380
ccttccccag tgtgagtgcc ggtgccggga ccagagcaga gaccgcagcc tctgccatgg 1440
caagggttc ttggagtgcg gcatctgcag gtgtgacact ggctacattg ggaaaaactg 1500
tgagtgccag acacagggcc ggagcagcca ggagctggaa ggaagctgcc ggaaggacaa 1560
caactccatc atctgtctcag ggctggggga ctgtgtctgc gggcagtgcc tgtgccacac 1620
cagcgacgtc cccggcaagc tgatatacgg gcagtactgc gagtgtgaca ccatcaactg 1680
tgagcgctac aacggccagg tctgcggcgg cccggggagg gggctctgct tctgcgggaa 1740
gtgccgctgc caccgggct ttgagggtc agcgtgccag tgcgagagga cactgaggg 1800
ctgcctgaac ccgcgcgctg ttgagtgtag tggctgtggc cggtgccgct gcaacgtatg 1860
cgagtgccat tcaggctacc agctgcctct gtgccaggag tgccccggct gccctcacc 1920
ctgtggcaag tacatctcct gcgccgagt cctgaagttc gaaaagggcc ctttgggaa 1980
gaactgcagc gcggcgtgtc cgggcctgca gctgtcgaac aaccccgta agggcaggac 2040
ctgaaggag agggactcag agggctgtg ggtggcctac acgctggagc agcaggacgg 2100
gatggaccgc tacctcatct atgtggatga gagccgagag tgtgtggcag gcccacat 2160
cgccgccatc gtcgggggca ccgtggcagg catcgtgtg atcggcattc tcctgctggt 2220
catctggaag gctctgatcc acctgagcga cctccgggag tacaggcgct ttgagaagga 2280

gaagctcaag tcccagtgga acaatgataa tcccccttttc aagagcgcca ccacgacggt 2340
 catgaacccc aagtttgctg agagttagga gcacttgggtg aagacaaggc cgtcaggacc 2400
 caccatgtct gccccatcac gcggccgaga catggcttgc cacagctctt gaggatgtca 2460
 ccaattaacc agaaatccag ttatttttccg ccctcaaaat gacagccatg gcaggccggg 2520
 tgcttctggg ggctcgtcgg ggggacagct ccactctgac tggcacagtc tttgcatgga 2580
 gacttgagga gggagggtt gaggttgggtg aggttaggtg cgtgtttcct gtgcaagtca 2640
 ggacatcagt ctgattaaag gtggtgccaa tttatttaca tttaaacttg tcagggtata 2700
 aaatgacatc ccattaatta tattgttaat caatcacgtg tataaaaaa aaataaaact 2760
 tcaatacagg ctgtccatgg 2780

<210> 1596

<211> 4272

<212> DNA

<213> Homo sapiens

<400> 1596

gttgcggcgg ctccacgtag ccaggcggcc cgtgggctgg agcgggcgga gctcggccc 60
 cggcttgcgt gagctcaggc cggteccagc gtccagagcg ccggcccttc ggcttcttct 120
 aggccatggc agggccgggc ccaggcccgg gggacccgga cgagcagtac gatttctgt 180
 tcaagctggt gctggtgggc gacgcaagcg tgggcaagac gtgcgtggtg cagcgcttca 240
 agaccggcgc cttctcggag cgccaggga gcaccatcgg cgtcgacttc accatgaaga 300
 cgctggagat ccaggctgca gatctgggac acggccggcc aggagcggtt ccgcaccatc 360
 acccagagct actaccgag tgccaatggg gccatccttg cctacgacat caccaagagg 420
 agctccttcc tgctggtgcc tctactggatt gaggatgtga ggaagtatgc gggctccaac 480
 attgtgcagc tgctgatcgg gaacaagtca gacctcagcg agcttcggga ggtctccttg 540
 gctgaggcac agagcctggc tgagcactat gacatcctgt gtgccattga gacgtctgcc 600
 aaggactcga gcaacgtgga ggaggccttc ctgagggtgg ccacggagct catcatgcgg 660
 cacgggggccc ccttgttcag cgagaagagc cccgaccaca tccagctgaa cagcaaggac 720

atcggagaag gctggggctg cgggtgctga ccagggggccg ggccggcaga ctgggggttc 780
cccacctcct tgctctcccc agcctgccaa gcccagccct ccagagccag ccctcctggg 840
taccggcaac tacagcagcc ggggtgaagct ctggagctct gcatcctgtg gcctggctgc 900
gggatggagg ctctccttga ggaaggggaa gcaggatacc ctggcgggcc accctgccag 960
ccagcagctg gccctccacc atcttcacat tccaagactg gcctgaaccc gccggtgtgg 1020
gccacagtgg gaggggcccag cagtctctcc tgtcccatgc ctgctggctc tgaccgtttc 1080
ctctcatggg tttgctttac ctgtggcagc aggttgctgc tttccaggga tgtgtccagt 1140
gccctgggtt cttcccggtc atcctggggc tctgcacaga gcagcagagc tagagccatg 1200
agaccacag acttggtgcc tgagcgcagc tccagggaag ccccagcccc ttccaggcgg 1260
ggaacctgct tcctgccttc actgcccccg cagcactcac agacatctcc ctgggggtctg 1320
gtcactgcc ttatcaggac ctctgagttt tctgactttc tgtgtagctt ctattttca 1380
tcagcacagc atggggtcac ggcccacagc taggtggggg cacggccac agctaggtgg 1440
ggactgtctg ctggctcagg gccagtggtt ttgccactca ggttgcaaaa ttagctaate 1500
cttcagtgcc agcactcaga agtctggcag gtgggggaat gagatgagaa agtggacatt 1560
taagggtcaa gtagaagctt gcatccttga ggctcaggga tgagagggca ccgcaaggca 1620
cccagcctta cccacaagc aggaatcctg ccagccgagc gtgggtccca gtctatggaa 1680
tcgagtctcc cagacaaaaa aggagaggcc ctggcggtcc ttggcctggc ccattttatt 1740
ccctggaccc ttaactgcct caccctgagc tgggcaccaa agttagaagg caaaagtggg 1800
gtagggggat gtgggaagca gcattgtcct ctgggcatgt ggctcagagg tatcacagtg 1860
acaaaagagc cagggttagg gctggagggg ccaggtgatc ttccttagcc aatcccagtc 1920
cgtctgtgtc agcccagctc tgcctcgcag cccctcagc atgggtgccc ccagaagtaa 1980
gcagctcttg gaccacagc cagggtgcg tcggtttgtg gtctagctcc cagggccagg 2040
ccaggcatgg ctcagtgcag tccctgggcc agtgagaggc ctccccatg cctccctgcc 2100
ctctgcacta agcactttcc aggcaggcct ggccataggg caagagcagg ccttacagca 2160
gtgccacggt gacccaagag gcagggttgg ggcctggaca ggggttcctc tgctgagact 2220
gagacaagca gggcttgatg ctgggtgttg agccagcatc tcacctgcca ggcttccttt 2280
tgggcaggga ggctacctgt ggaatggctg agcctgggtc tgcaggggag gaaggctgcc 2340
aggagctgag gggctggcac ctgcattgag gggagtctgg gtgcatcaga ttggggggcg 2400
ccagaggcga ggctgcctgg ctccctttct cagcagcttt gcttgtggca ggggtgagag 2460

tggagctgag tggggctctgg gctctgcccc tgcgcctcca ctgcagtgcc tgggctcccc 2520
ttgcagggca gacagtgcct ggcactgagg ggtgccccca gaccccgtg ggactggatg 2580
tgccgtgggc agtgccttcc tccagcctca caacctttct gctggggctg aagtttctgg 2640
ggtcacatgg tcagaagggg ctgagctggg ctttactgc aggccactc tgaaagagaa 2700
atcccatgaa gcctgtcctt gcagagcccc tctgtttttg ggggaacagg gagcattcac 2760
agggtcttgg gaacaaaggc ctgggcctcc ccgtttgaat ttcagcccca gttccagggc 2820
aagtcccagc cacccaagca tacttaccag tactgcccac caccaccac tgcccacctc 2880
taagaagccc ggctctccta ctctgcttcc aggttggggc ctcacaggtg gggctgttac 2940
cttcctcagg gcttagggag ggaggaggga catggacagg gccttcacc ctggctcctt 3000
cacagggatg gtagctgacc ggtgatgggt tcatttgtca ccttggactg tgagccactt 3060
ccacttctcg cccccaggc aggagcacc tcactccaag ggcttggcct ggaaaggcag 3120
gtcacctgg gactcaacgt tccttcccc gccgccactg tgccccccg tccctccacc 3180
ccagaagccc tgacctcatt tgggcacctt gctgtcctt gggcttctcc tctgccagg 3240
tcacctgtg gcaggcctgg gccctcagga tgtttcaaag gctccacagc tccaccgctc 3300
cacctggctt cactccagca ccctgtccct ggagcacctc tgtcctgtt gggccaacct 3360
ggctcctctg ccccatgccc tccctgggt cttagcaacc tgccctttta ttcattgcat 3420
ttggggtcac agatgcctag ctggacacag ctcccagaac tggctccacc ctggggcctt 3480
gcccctagta cccctggca ggagcaacc accccatggt cgaggttccc ctaccctgg 3540
atcctggact gaagccattt cctacagaga agcgttccca cccctctca ggcacaaaag 3600
ccggtgtcca gggactcaag acctgtacct ggggttgcag gggctcctgc cctgctgtat 3660
cccaccagga gggggcccca ctgcccttcc ggcccttaaa actgggctgg gagtgaagac 3720
ggggaagtgt gtgagacaaa acaaagccgg cttgtttcct ccccttggca ggctaagctc 3780
tcccggcagc ccgggctctg gggcggaagg agaacagtgt catctcttcc tttgttgata 3840
aattgcaaaa gagtgggaac aggtgggggtc aggggccaga gtgcagggga gggggcaatg 3900
gtggaggtgg cggggggaag cagagggagg tgggctgagg cctcggtggg gccagtgcga 3960
cgctggctta aggagctgga ggggttcccta atacacattt aattcagttt ctcttcccta 4020
agaggctgcc ggagttgggg cctcctccag cagagaccct cggaccctg cagggcctgg 4080
acttgggggtg aacagggtt cagtcagcgc aagtattcca tttgcatttg gtaatttttc 4140
atgccaccta tttatgaata tataaatctt tataccaaat ctatttttta aaacatggaa 4200

aagttgcctt tatggaaact tggcagagcc agagtgtaca cattcctaaa ccattaaaca 4260
gatttctata ac 4272

<210> 1597

<211> 3017

<212> DNA

<213> Homo sapiens

<400> 1597

gaatgggtgtg tgctgtgcta tccaggaaca cttttattat cattatcaag tatttgtgtac 60
tgtacagaat gatgtgtgct gtgctatcca ggaacacatt tattatcatt atcaagtatt 120
gtgtactgta cagaatgatg tgcgctgtgc tatccaggaa cacatttatt atcattatca 180
agtatttgtgt actgtacaga atgggtgtgcg ctgtgctatc caggaacaca tttattatca 240
ttatcaagta ttgtgtactg tacagaatgg tgtgcgctgt gctatccagg aacacattta 300
ttatcattat caagtattgt gtactgtaca gaatgggtgtg cgctgtgcta tccaggaaca 360
catttattat cattatcaag tatttgtgtac tgtacagaat ggtgtgcgct gtgcttttat 420
gcaagtggca gcacagtagc tttacacgag catcactaga cacatgagta gcattgcact 480
cggcaacagg aatTTTTTca ggccattat tataatctta tgggaccgca tcctatatgc 540
agtttgtcat tgacaaaat gtccttatgc gatgcatgac tatatttgca aaggactagt 600
atctagaata cttttaaag tcttaaata gtaacaaac aaagaatgca attagaacat 660
gagcaaaaga taaaagcaa ctttctactg gagaagatat acagattgca aataagcaca 720
tgaaaagatg tttgatacca ttagggaaac gcttctttaa accaggagat atcaccacgt 780
gttagaatca aaaaaataag gccaggcatg gtggctcaca cctgtaatcc caacactttg 840
ggaggctggg gcaggcagat cacatgagat caggaattca agaccaacct ggccaacatg 900
gcaaaacct gtctctgctg aaaacacaaa aattagccag gtgtggtggc acacgcctgt 960
agtcctagca ccttgggagg ctgaggcaag ataattgctt aaaccagga gacggaggtt 1020
gcagtaagct gagatcatgc cactgcgctc cagcctgggc gacagagcaa gattatgtct 1080
caaaaaaaaaa aaaaaaaaaa agaatcacca aaataaaaaa tagtaacaat actattgtca 1140

aggatgcaaa ggaactgtac cactcaatca ctgctgtgag aatttaaagt ggtgcagcca 1200
ctctgggaaa cagcttggct gttttttttt atgactgaat gtgcaactac tatatgatgc 1260
agtaatttca tttttgcaca tttatcccgg agaaatgaaa acatatattc acacaaaacc 1320
tgtatatgaa tgctaataaa agtcaattgg ccagggtgtgg tggctcatgc ctgtaatccc 1380
agcactttgg gaggctgagg cagtggatca cctgagggtca ggagtttgag accagcctgg 1440
ccaacgtggt gaaaactcgt ctctactaaa aatacagcaa ttagctgggt gtaatagtag 1500
ccacctgtaa tcccagctac tggggagggt gaagcagaag aacctcttga acccgggagg 1560
cagaggttgc agtgagctga gatcgtagca ctgcactcca gcctggggcga tagagtgaga 1620
ctctgtctca aaaaataaaa taaaataaat aaaaagatta gataatctgc aaagttcctg 1680
tgagcgctgt cattttgtca ctctggtttt tcagattctt cccctggagg ctggagtttc 1740
caggatgtca agattacctc tgcttgggtg agctatttca agcagctggg atacctgtgt 1800
cactcctgct gtctgccagt gactgcccag gtgtctgctg gttcctcccc aggagtaggg 1860
aggaaccagg tgggctggct gggatgggtg gatattttaa gaccaggcct tggacgtgc 1920
agcacttcta tctctgcttg atgcctgctg ccacgtggct ggtcctctc ctctgctgt 1980
ggctgagcct tggggtgaag acagctgctc ccaaccccag aacctttgct gtcttgggac 2040
ggatcaccgc tgcaagaggg gaagttgcta ctgtgatgaa ttctgccatg tggcaccaga 2100
ctgccacca gaccacagtg tcctctgcaa ccccggtaac tcacatacag gcccgattcc 2160
acctacagca aagctggatg cgatggctgg cagaggcaaa ccctttgcct gactgcagg 2220
ccaaagccgg gatgtggcct agatggttcc taaggctcct gacaatcctg agatcttgca 2280
tcttgtctat ttcaggtcaa aggtgcctac atgctccctc tagctttgtt tccctgatgt 2340
tccttgccac ctgctactcc tctctgagct acttttccag gttccacagg gagaggttca 2400
gctgtccgtg gtagacatga gggtagagaa tgagggtggt gggttccact tacctttcta 2460
tcactctgca gtatggatgt ctcttgactg gtaccgtgta gacttttgag ggcacacagg 2520
agtctgcaga gagatactgg ggacattgag cagcagcagt ggggttggga ggcagaaatg 2580
aggacaggaa catttacctt gtgtttctct cagcttctca gatgaccaag atggtgctgc 2640
agatggtgct gaggatggag aaccaccaa gccccgctag gagccaccta gactggatgc 2700
agagcatggt tcagcgagtt ctccaaacca gcctcccagg aatgccattc accatggctg 2760
tgaggagaat aaagaagaga gcctgactcc tctcctgagg ccccttcccc accctgagcc 2820
agcaggatcc acggagcaga ggtcatctgt cccagcttg gccactgag gccagcatgg 2880

ctgggcccag gatgcttgtc tctcagctcc catcctgtgt acttccacat tggtttaacc 2940
agaggaaaac cgaaatctac aattgtcata aacacattta aatgtgcgta gaatcagcca 3000
tacaaattgt gaaacat 3017

<210> 1598

<211> 3469

<212> DNA

<213> Homo sapiens

<400> 1598

gcatctgcac aagttgttca ggggctccat gggacccaac tacacctcca aatcaagggtg 60
ggtgatttga tatgttttat ctgctgtttc agtggccaga caagagtcgg gatgggctgt 120
aaggaaagggt ggtcttatgc atgtggtcct tcaactccac gacttggcca cataagaatg 180
ggccttaggc caggaacatt ttcttaccag gagacaaaga gccccacag cttttgccag 240
ggttattttc ctatgtggga aagtctttcc ctatttcaga ctcaacgtgt gtcctcctt 300
ttgcttcagt gtgtgcataa atggcccaat tttgtagcac actcccagct ttcattattt 360
caggctccaa ggggaaaagg aaaggttcct tctgctgcag cacaagagag atgtatgcag 420
gccaactgtg tgggctgcca ggagggaccc acaggccaag ggggactgac acacactatt 480
gaaagtgatt ttgctctatc tcttctctat gtaagtaaag tgtcgtccta tccaggacct 540
gactgtgttg tgtttttctt ggaaactctg atatcaagat gcattgagca gaagtgtttg 600
gacttctatt cctggtggtt ggcatggtga tgatctttgc tactctccat gtagttggag 660
tcctcctcca acaatggtaa ctggtgcata gtgttctgtt caacaatgac catctatgat 720
taattgtagg accacttttt cacttgataa ttatatagat aattattgct ggtaaacaat 780
ctccttgtat tggtttcaat atatacattt ttatgattac tgtgcttatt atttcctctc 840
tttagtcttg cctgcttatg caaacaataa tgcataataa taaccataa tcaatagaat 900
ggcatctata tataaaaaac actactattt attaaaatga taaaaattaa acatactata 960
acattcaaac aaatttgctt ggaaactcaa tatTTTTATT tcgtatttta gaatgattgt 1020
tctttatttg aagaatgttt gtaatctaaa ttttttcttg atacaagaaa tggaaccac 1080

tacctccctt gatggaattt ctcttttctt taaatgtata atctgggcac tgggggtgcat 1140
acatatgata tacagtggta agcaaggcac ttacattaag agtgacagaa attgagaata 1200
tttttttaggt attttaacaa attgagttta tgttaatcct ttgcaacctg tgtaattact 1260
gctatgactc aactagctga tttggccagt caacaaaaac tgaagggaaa gttgctaaga 1320
gattcttcac tgaaacccaa gagttggatg agagtcagaa tctgatgtta ttgtacatag 1380
aggctttaag aagacaacac aagccaagca acttccagaa ctgggtatca aaggagtcaa 1440
agaaaggaag catagccctt acccctgtgc tctgtatgga gcatccctac ataaagccat 1500
ctgaggactg gacagaagct ttggagaaat aggtggtagc taccttggaa tcaatatcat 1560
cttcttgcca tgggcaccag cagttatgaa gctgttccaa gcaaccctga gaacagcaga 1620
cagctggcaa agggaagcat gaactggaga ggaataaaca aagcaggtgt tacttggtaa 1680
ttgattcaga aagactgggt tgtaagcaca ggtgaggcat acttttagtg gggacaagtt 1740
tgtactcgtg aagataagca gattgggatc actgtaattt gagtgtagat atgatcatgt 1800
cccatTTTTgt agtcacagat ggcaaaccce ggtgacactt gtgtttaaga actcatctcc 1860
ttttgttaac cacagtatta aggtagaatt gacatgtaaa aagctgttaa tatttaattgt 1920
atataactca atgagtataa aggtaagtat acaccataa taacatcacc actatcaaag 1980
ccctaagtct cttcgcgccc cctttattag taatagtaat gttttgtgta tgttgtaaga 2040
acacttaaca caagatctct cttagcaaat gttagaatg caacacagca ttgttagcca 2100
taggtattgc gctgcatagt agatctccag aacttattta tcttacatac tttgtgcccc 2160
ttgaccacaa tctctccatt gactcctccc cttaggccct gacaaccact attctactct 2220
ctgcttcttg gaactcatct ccttttacct aacaaccatt atacatttat ttaaaacctc 2280
aaaaattaat tcaagatgga ttaaagactt acatgttaga cctaaaacca taacaaccct 2340
agaagaaaac ctaggcaata ccattcagac acaggcatgg gcaaggactt catgtctaaa 2400
acacaaaaag caatggcaac aaaagccaaa attgacaaat gggatctaata taaactaaag 2460
agcttctgca cagcaaaaga aactaccatc aaagtgaaca ggcaacctac aaaatgggag 2520
aaaatttttg caacctactc atctgacaaa gggctaatat ccagaatcta caatgaactc 2580
aaacaaattt acaagaaaaa aacaacccca tcaacaagtg ggctaaggag atgaacagac 2640
acttctcaaa agaagacatt tatgcagcca aaaaacacat gagaaaatgc tcattgtcac 2700
tgcccatcag agaaatgcaa atcaaaacca caatgagata ccatctcaca gcagttagaa 2760
tgcccatcat taaaaagtca ggaaacaaca ggtgctggag aggatgtgga gaaacaggaa 2820

cacttttaca ctgttggtgg gactgtaaac tagttcaacc attgtggaag tcagtgtggc 2880
 aattcttcag ggatctagaa ctagaaatac catttgaccc agccatccca ttactgggta 2940
 tatacccaaa ggattataaa tcatgctgct ataaagacac atgcacacat atgtttattg 3000
 aggcaactatt cacaatagca aagacttgga accaacccaa atgtccaaca atgatagact 3060
 ggattaagaa aatgtggcac atatacacca tggaatacta tgcagccata aaaaatgatg 3120
 agttcatgtc ctttgtaggg acatggatga aactggaaac catcattctc agcaaactat 3180
 cgcaaggaca aaaaaaccaa acaccgatg ttctcactca taggtgggaa ttgaacaatg 3240
 agatcacatg gacacaggaa ggggaacatc acacgctggg gactgttgtg aggtgggggg 3300
 aggggggagg gatagcatta ggagatatac ctaatgttaa atgacgagtt aatgggtgca 3360
 gcacaccaac atagcacatg tatacgtacg taacaaacct gcacattgtg tacatgtacc 3420
 ctaaaacttg aagtataata ataataaaat ttaaagaaag atgttctat 3469

<210> 1599

<211> 2907

<212> DNA

<213> Homo sapiens

<400> 1599

ttgcccaggc tggctcttgaa ctctgagct caagtaatcc tcccagctca gtctcccaaa 60
 gtgctgggat tacaagcgtg aaccaccatg cccagcctct ctgtgtctta tgataaaaaa 120
 aatactggat gagacaagac tgaggaggaa gaccagga cccttttttag cagagcttac 180
 cagcgggtgt ccaaggattg aatttccctt cctagacatg ttttgcttca actaaaaaga 240
 tatatgtata tgtatgtatt atgtatatca cacacatatg tgtatatcac acacatatgt 300
 atgtatatca cacacatatg tgtatatcaa acacatgtgt gtgtatatca cacacatatg 360
 tatgtatatc acacatatat gtatgtatat cacacacata tatgtatgta tatcacacat 420
 atatgtatgt atatcacaca tatatatgta tgtatatcac acatatatat gtatgtatat 480
 cacgcgtata tgtgtatgta tatcacatat atgtgtgtat atcacacata tatgcatgta 540
 tatcacacat atatgtgtgt atatcatata tatatatata tgcattgaccc atatttaaaa 600

gtaggatatt tcataacgaa ataccagtat taggtatctt ttgaaaaagt gtcgtaactg 660
acagcccaag tctgcattcc ttcattggcac cagggctaga actgagaagt agctgacttt 720
ttgggggtgga tatgggctcc cctagtcatt ctatatgcct cattttatgt gactggccgg 780
gccccatagg cgtttatgtt tgccactctt ttagaggctc ctttaagggt gacatatatt 840
cattgattga tcaactcatt tacacacgca tgcagtcatt ttttgaccc ctgtctatgt 900
gctctgcaca atgcgaggtg tgggatataa tgggtgaccaa gacagattct aaccactcac 960
tcacagatcc cacagcctac cagggaagcc agatatggaa caattatata cgtaatttta 1020
cttgtaagt ccacaaagac aaattgtatt aagtagtacc atgtggctgt ggaagtttaa 1080
cttgctacta atccacaaa ctctgagaag acagcatatt ttccgtcatt cccaaaagac 1140
tatcacaggc aacattgagg aatgctttgt taaactccag ggatatattc cacatcacac 1200
ttccccgct caccagatta gcaactgtcc aaggacaaaa caaacacac actaaaaagg 1260
aaatgggggt agtccgatat gtctccatct ccttatgctg gttcttttgt ctgcagaagc 1320
cacggtttct ttttcttttt gaaaaaaaaa aaatgacatt tgcgtacctc tctgcgtttc 1380
tctttctcca ggattcttct gggatcctag gcagtgtggt ttggtgatct cactggtgag 1440
atctcttggg gccctggaat gcaattcatc tgggccagaa gagttgaact aataatttaa 1500
ggacatctga gtgcttcact gatgtatttg ttctgctctg tcccttcaaa ataccactac 1560
tcaaaacaat gttcagctgg agaaagtggg taacactgga attttctttt tttctgagac 1620
ctaattgaca gggaagggtg gatgaaggaa acatatcctt tgaaaatcct ttagttagaa 1680
tcctttgggt gcaagtaaca taaatgaact ctgattaatg taagcaaaaa agaatttgtt 1740
agaaggatat gggggggagg gatggacaga gatgtgaagg aaaagatgaa gaactaggct 1800
ttagaaagtc ctgaaaccaa atgaattcta gggatctagg aagcaggac taatgactgt 1860
ttccttcagg acaccagaga tgggggtgaat aactctgtaa aagatgcaaa tttccacct 1920
gggtaacata gtgagaccct gtccttaaaa aaaaacagta gccaggcaca gtgccttgag 1980
tcacacgacc atctctgact tgttgacccc tctacaatcc catataagac tccccagag 2040
tagattctga gcaggtaaag cccatgggtg ttcccaaaag tcggcctcaa cctgaagcca 2100
cttattcact ctgagctcat caccaatggc atgccgact gtcaaaactc tctttctgtg 2160
catttgtctg ggccactcaa ctcaggaaag ttagttgttc tgtgtgagtc cccatgttct 2220
cattgatttc atttcagtct ttaagctaaa aatctgtgta aatggtaatg gagaatggct 2280
acatcacact tagtatgtgt caaagcagta tcctaagtgc cttagtggta tcagcttatt 2340

taagactgac agtactctga ggtgcagtca cttctttttt tttttttcct ttttttcaaa 2400
 acagagtctc actccgtcat ccacactgga gtgcagtggc atgatctcgg ctcaccgcaa 2460
 cctccgcctc ccagggtcag gtgatccacc cacctgggcc tcccaaagtg ctgtaattac 2520
 aggcgtgagc caccgcaccc ggctgtgcac ttcttgtcat tcacagtagt tatgtttctgt 2580
 aaagtcaactg caaacactga attaataaac actgaaccat tgttcctagg tgaaatacaa 2640
 agttgggttc ctgtgagcct ttgggtcacag cattttcatc cactgatcaa cccgtaagct 2700
 tattctgtgt gtgtttctgt ttaaagacac cttaatatat attgttgact cattaacatc 2760
 taactcaactg ccaacagcac tccaactcgt gcctgatcaa agcttatata acacacgcat 2820
 gacacatctc ggactccttg cacttaggaa caccagatag cacttcacca ttaccctatg 2880
 ggaccatttt acagcaacgt caccctc 2907

<210> 1600

<211> 3980

<212> DNA

<213> Homo sapiens

<400> 1600

caatactgat ctcttttccc tctctatgga tgtatctatt ctggacattt catataaatg 60
 gggtcataca atagggtggtt tcttttactt tgtgtagtat ttttgacgtt tatccatgtt 120
 ttagcatgtg gtggttcttc cttttcttgg cttagtaata ttccattgtg tggatacatc 180
 atcttttgtt tatccgttgc gcagtttgta gacactgggt tgtttccacc tttgggctgt 240
 tgtgaacaat gctgctgtga acctccgtgc acaaggattt tcttggggac ctgtttcttc 300
 ctctcattct tgcctcctac cactctaccc attaccatat ttttccaaac cagacatcag 360
 cacactggct acgtgtgtgt ttaggaaagc atctgtggag ggaaacagct tgcctcatgc 420
 tgccctgct tcctgtctac ctttctccaa gcctttttcg tccgctgtca cctaggcttt 480
 tggttaatca catgttgaga ttaatcccat tttgtctttg ggtaattaac atgtgatgtc 540
 cacgcattat ctccacggtg aaagtcttaa ggtcaacgtc cctcttgggg ttctgtgtcc 600
 cctgcagagc cgggcacagc ttggggcagc taagcagtcc cctagttcct aggcccttgc 660

ttgccccatg ccacctgtcc actggtgact aaccctcctg cactctcccc tgtccccctt 720
gcagatgatg tgctgactaa agacgcgggt gagtgtgtga tctgcctgga ggagctgctg 780
caggggggaca cgatagccag gctgcccctgc ctgtgcatct atcacaaaag gtaggagggg 840
ttggcaaggt agcttagtgc accccacctc ccagaggggc ggacccccat ctccagccat 900
tctgtctcct ttggttatgg gatgacctct ccccgacct ctggctccga gcgggtaagg 960
gcagaggccg tcagacaggt gtccactgtg ccggcgggaa ggtgcgagca tcccaagtgc 1020
agagcagagt ggagttgcca gaggtgtgct ctggtttgag ggctcaggtg gtgggagctg 1080
atggggagac ccgtagagcc tcacaggttg gaggagcttc ggatcccaact gggaaggttg 1140
gttctccgtc tgtctccctg cctcttcttc ctctacgggt ccctctgctc cacaggggta 1200
gaacatcaat ctgtgcgagg aaggccaggc ggagggtgta cccactgcct tgcactggcc 1260
ttctccctag agggccggga ggcaggaaga gccatttctt gtggggccac agcactgggc 1320
acagttaaaa gtagcagggc ccagatatgc cttgggactc cagtgtgagc ctcgtccttg 1380
tttccagctg gaaggaaggc accctcttgc ccaagacagg aactgtgct gcctggggcc 1440
agcacctgct gaatcctcga gcccagagct tcttctgac actcaggcct ttcaaagcct 1500
gactctcagg gccactgctg cacagggtga caaccgggca tggcacgcag tgtggctggt 1560
gcagaggagg cttaaggctg gcctgggaga gattcttgggt ctagctccca gcacggagcc 1620
ttgcttgtgt cccagggcgg cactaaccag aaccagaaaa ggaaatcttt ggccctcggg 1680
gagaattatg ccaattatct gtctgggttc tgtctttgaa aatgcccaga tgttggttta 1740
caaacagga agctgtcttg gggcaatctc tgttccctct ttgatgcaga gagcctttct 1800
ctgtaaacac tggagagcag ggcttcaactg tctggctccc ctcccgctc ttgcaggaag 1860
gactagatgc tgctgatcag ctgatcatgg ctgagccggg tagagcttgg ggctctccta 1920
agaggtcacc cactgggagg gagcttcaca gctgttcttt tgaccagga aggagctctt 1980
tcaggactgt ggcaccaga gccgtggccc tctgccatg ccattgttcc cacttccctg 2040
cccttgggag tcttggagac agctgactag ctgccctgag gggtcaccg ctctcacctt 2100
ctcactggtg gctgctgcca ttctcctggg ctctgcacag aaagctttgg tcttctgaa 2160
agccactctg ccccttctg cagcaccaga tccccctgag ccggtactgc tgccctcacc 2220
tgggccaaga ctagtcttgg tgttcaccct tcttcgtgct tcagaaagta gggatatctg 2280
gggacatgac tgtgtttccc tggggtcctt tcagaagaga cttaggaagc tcctgctcag 2340
gaatctggcc ctctgaaaga gccccttcaa agcagcctgg gcagcaggta acgtggtttc 2400

ccttgccggcc ccctcctccc agctgcatag actcgtgggt tgaagtgaac agatcttgtc 2460
cggaacaccc tgcggactga cctgcgggct tgcttgctga ctccctctcaa aggtgagccc 2520
gcgtttgggg gtgctccggg ctcaaggctt ggggtcaggt cactttgggg gcctgcagtt 2580
tagggagccg ggctgccctt atgccactga gaagaaagca ggagcagagg gaaggagcac 2640
ctcatcagtg agcagttagt catccgaaa tgattttccc tgggaaggac aagagataca 2700
aaccaacatg gacagttatg aagaacaggc tcagaagagt taggatcagt tggggaagag 2760
accagtacaa tctacattcc taaagaaagt tcaggaatat cccctgggaa tgtgcacggg 2820
caggaaaagg agcctgagcg gtgggtttgt gcctggcttg gcctcatcct cgctcacctc 2880
tgagtctccg cctcttctat ggtaacgggg ataatctcac tccctgttgc cataaggaca 2940
ttgcacttac taaacagcca tgggcagtgc attgttcctt gcaaagtgtt ggtagcgat 3000
catttgacca ctgcttcttc ccatgccgct tccagatgaa tctgaggcct ccaggccaga 3060
ctcgatccct ctatcccaca gcactgggtg ctgactccac acatccccct ggcttaccgc 3120
tgggtctggc ctccccattt ctccccagg ggtacccac ttgctgcaa ccatccacc 3180
ctgaccccca tctcacctgt cccctccaag ttctgggctg gcattttcct ttttctggca 3240
aacaagtaga caaaaccccc ataaaaacca aaagcccaac tccatctcac agccaaaggt 3300
tttgggacct ttttcttccc ccctcccttt ctctctctct tgctttcgtt ttcttttgtt 3360
aggtttatatt tatttatcc aagtaaacct ccagaacagc tgatgatgtc agacaaatca 3420
gggacatttg ctctttttac ctccacctca aaactgatg acaaggggag aagaaagagc 3480
caggggggag agtgaggcag gggagtagaa cctgcccagg cacatggctg caaatcccc 3540
gtgtgctgtt tggcttctgg ggtcctgtgt agacgcccc gccccgcctg ccctcttggg 3600
atgcagctgc cctgggatga gcagacagcc ctccggccga tggagcacga cttatttatt 3660
acggtccaca caggacaga gcgcccctgc tccaggagg aggtcaccg gaccctgggg 3720
cagagctgag cttgggacac caacgggaac agggcacccc ttctgcactg acttccagat 3780
catggttctc ccttccctccc tgaggacacc aaattggatg agagcaagtt tgagagaaga 3840
atgaatcaac tgctatcctt cccctcacc ctccagccag gagggaaagg gcattttctt 3900
tttcatcttt gaaaggcatt gtgggtctgt ctttaaagt tttacaaaa aaaattatat 3960
aaaaaaaaag tctagtgtcg 3980

<210> 1601

<211> 4074

<212> DNA

<213> Homo sapiens

<400> 1601

tagagacggg	gtttcactgt	gttaaccagg	atggtcttga	tctcctgact	tcgtgatcca	60
cccgctcgg	cctcccaaag	tgctggggat	taccggcgtg	agccaccatg	ctcagcctct	120
ttttttttt	gagacggact	ctcactctgt	cgcccaggct	ggagtacaat	ggtgcgatct	180
cggcttactg	caacctccac	ctcccgggtt	caagcaattt	tgccctagcc	tcccagagtag	240
ctgggattac	aggcgggtgc	caccacaccc	agcttattta	tgtattttta	gtaaagacgg	300
ggttttacca	tgatggccag	gctggtctca	aactcctgac	ctcaggtgat	ccgcctgcct	360
cagcctccca	aagtgctggg	attacagacg	tgagccactg	tgccaggcca	acatctttca	420
cagcaagacc	tatttccaag	tctccctttg	tttcagacag	agacattttc	cttaactcta	480
atgtttcttt	taccttttca	tcccaccttc	tgttccctca	ttttctccct	ccttccacac	540
ccaagagtcg	ctgcccctga	tctagagtgt	tggctgtcat	gtgagaagtt	agttctgaaa	600
tcttccaggg	tcctgtgtga	tgggtgcctga	tgggtgcctcc	actgcgccac	ctgctgtcac	660
aaggtgtctt	gtcactgaag	acctcttagc	ccttcaccct	ttcactctga	tctcaggtga	720
acttcagtga	tgacagtga	ttggaagacc	ctgtctcagc	tgaggcctgg	ctggcagagg	780
agcctaagag	acggggcact	gcttcccggg	gccgggggcg	agcaaggaag	ggcctgagcc	840
taatgacgga	tgccgtgggt	gccccaggta	gtgcccctgg	gaaccctggc	ctgaatggca	900
ggagccggag	ggccaagaag	gtggcatcaa	gacattgtga	ggagcggcgt	ccccagaggg	960
ccagtgacca	ggccaggcct	ggccctgaga	tcatgaggac	catccctgag	gaagaactga	1020
ctgacaactg	gagaaaaatg	agctttgaga	tcctcagggg	ctctgacggg	gaagactcag	1080
cctcaggtgg	gaagactcca	gctccgggcc	ctgaggcagc	ttctggagaa	tgggagctgc	1140
tgaggctgga	ttccagcaag	aagaagctgc	ccagcccatg	cccagacaag	gagagtgaca	1200
aggaccttgg	tcctcggtc	cagctccct	cagccccctg	agccactgg	gaatatgcga	1260
cccctgatgt	tggtcacttg	gagagggctg	agcctctagg	gcttttgacc	cctctgtctt	1320
tccaggctgg	gttcggatct	ggatccagta	gcctctgaac	ctgtgtttga	accccagcac	1380

tctatgagct gtgtgcaggt cacttaacct ctccaagctt ctattccttc tgtaaaaatg 1440
gggttttaggg agcatggtgg aataagttga tgcctgttag ttgcatggca cccacttgg 1500
cacattgccc ttcataaatg gtagttgctg tttgccatgt gggagatgag atagggactg 1560
ttccttcttg gaaagttcct atcaactatg aaataaggaa ttcagctgta ccaagtgtcc 1620
ttacgttctt ctaggtcttt ctaccctgga ctccatctgt gactccctga gtgttgcttt 1680
ccggggcatt agtcactgtc ctccctagtgg gctctatgcc cacctctgcc gcttcctggc 1740
cttgtgtctg ggccaccggg atccttatgc cactgctttc cttgtcaccg agtctgtctc 1800
catcacctgt cgccaccagc tgctcaccca cctccacaga cagctcagca aggcccagaa 1860
gcaccgagga tcaactgaaa tagcagacca gctgcagggg ctgagccttc aggagatgcc 1920
tggagatgtc cccctggccc gcatccagcg cctcttttcc ttcagggtt tggaatctgg 1980
ccacttcccc cagcctgaaa aggagagttt ccaggagcgc ctggctctga tccccagtgg 2040
tatgcgggca gccttctggc cggctcctct gtcctcttct gcatcttctt actttggagc 2100
tgggtgaagg agtttttagc attggttagt ttacatagat ttatgacct tatgtcatac 2160
cttttcacct gttagcatct tacatcagga aggtttgttg ttttttttaa acctcaactt 2220
tgaattacca gcaaattcag tgtctttcct cagaggtgag ttcagatgac tggggtcttc 2280
tgtgctaaca tgaaacatat tcacatgatt tgagtgcctc actttgttag ttgctgtgag 2340
ggacacaaag tacaagtcac ggtctctgtg cacagggagc tattagagca agggagagca 2400
ccttgacctc tagtgaccag ggaaggcttc ttgatgctgg cttgagtgat ggataggaat 2460
tgagtgccca agacagggaa gggaattcct ttaacagctg aatgagtctg gctgtatcct 2520
gtgtgtcagg ggtgactgtg tgtgtgttgg ccctggccac cctccagccc ggaaccgtgg 2580
gcaacacct cctgctgacc cggctggaaa aggacagtcc cccagtcagt gtgcagattc 2640
ccactggcca gaacaaggta ggattcctgg gccatggagc aaagttagggc tggattgggc 2700
ttcgggtcaa gctgctcaca ttctgtgttg agggagggag agatggtgat cacgtggaca 2760
agcagagctc tcacagcccc atctcccaaa gcttcatctg cgttcagtcc tgaatgagtt 2820
tgatgccatc cagaaggcac agaaagagaa cagcagctgt actgacaagc gagaatgggtg 2880
gacagggcgg ctggcactgg accacaggat ggaggttctc atcgcttccc tagagaagtc 2940
tgtgtggtgg tgctggaagg ggctgctgct gccgtccagt gaggagcccc gccctgcccc 3000
ggaggcctcc cgcctacagg agctgctaca ggactgtggc tggaaatatc ctgaccgcac 3060
tctgctgaaa atcatgctca gtggtgccgg tgccctcacc cctcaggaca ttcaggccct 3120

ggcctacggg ctgtgccaa cccagccaga gcgagcccag gagctcctga atgaggcagt 3180
 aggacgtcta cagggcctga cagtaccaag caatagccac cttgtcttgg tcctagacaa 3240
 ggacttgcag aagctgccgt gggaaagcat gccagcctc caagcactgc ctgtcacccg 3300
 gctgccctcc ttccgcttcc tactcagcta ctccatcatc aaagagtatg gggcctcgcc 3360
 agtgctgagt caaggggtgg atccacgaag taccttctat gtcctgaacc ctcacaataa 3420
 cctgtcaagc acagaggagc aatttcgagc caatttcagc agtgaagctg gctggagagg 3480
 agtggttggg gaggtgccaa gacctgaaca ggtgcaggaa gccctgacaa agcatgattt 3540
 gtatatctat gcagggcatg gggctggtgc ccgcttctt gatgggcagg ctgtcctgcg 3600
 gctgagctgt cgggcagtgg ccctgctgtt tggctgtagc agtgcggccc tggctgtgca 3660
 tggaaacctg gagggggctg gcatcgtgct caagtacatc atggctggtt gccccttgtt 3720
 tctgggtaat ctctgggatg tgactgaccg cgacattgac cgctacacgg aaactctgct 3780
 gcaaggctgg cttggagcag gccaggggc ccccttctc tactatgtaa accaggcccg 3840
 ccaagctccc cgactcaagt atcttattgg ggctgcacct atagcctatg gcttgccctgt 3900
 ctctctgcgg taaccccatg gagctgtctt attgatgcta gaagcctcat aactgttcta 3960
 cctccaaggt tagatttaat ccttaggata actcttttaa agtgattttc cccagtgttt 4020
 tatatgaaac atttcctttt ggtttaacct cagtataata aagatacatc attt 4074

<210> 1602

<211> 1362

<212> DNA

<213> Homo sapiens

<400> 1602

ccaaggttat gcataatcat tctgagttat aggactgggg accaggaatt taggttcaac 60
 tctaaggctc gatggtcacg tctaaggctc aaatccatga ctgaagccta ggtccaagga 120
 ctacaggagc aaaggaaaat ttcatcacc aaatttgcaa gtgaggcca aatcttatcc 180
 ctgggtccag atccaggctc aagtcaaagg tccaaatcca ggtacaattt ccatgtttta 240
 ggtataagat ccatggccca ataaaaagca aggtctgaga tccaggcca agatccagg 300

agagattgaa tttccagtta taaagtcaaa tacaagaaat gaaggtcacc tccctgttta 360
 aattccagat ccaaggtcca agatgcagtt ccaaagacgc gggtgttggg ccatgtgcaa 420
 ggaccaagtc catgttccaa atcaaataca ggccctgcac taggtccaac atccaagacc 480
 aggtccagat ccagatccaa agacgaggtc cacagccagg gacaaattct agtccaaggt 540
 ccaagtccaa agtccaagtc aattttacaag gtccagatca tggtcctaag tccaagatac 600
 acatggagggt ccaagtccca tgtccaagac ccaagaatga ttcagatcca tttcatgacc 660
 aaggttcagg tctaagggtga gttccaaaat gcagaacaaa tccaagtcag aggttttagtt 720
 ccaaggtgca ggttcaaagt tcatatccac acacaaggtc caacatcaaa gccaaagatc 780
 caggttcagg tccaggggca ggagccctga tcttggattt cccagttcca gaactgtgag 840
 aaaagaaatt tctgcttggt acagtggcac atgcctggag tcccagctgc tcaggaggct 900
 gagacaagat gattgcttga gccctgcctg gagtttaagg ccagcctgag taacatagca 960
 agaccctgtc tttaaaaaaa aaaaaaaaaag gggaaaaaaaa aaccagaaa agaaagaaac 1020
 ttctgttgtt ctttgtaaata tatccagttt caagtatttt gttacagcag caccacagta 1080
 gagtattttg ttactcttac ccccgacccc agggaaatgta gaccacagcc acagcaccat 1140
 agccaaagca taccattgct gttttataag attgactgta atattagact agcagaaagg 1200
 gagactttga gtcatacaat cccctaataa aatagggttct ttaggctggg tgccatggct 1260
 cacacctgta aaccagtgct tttgggaggc tgaagcaaaa ggacactcaa ggccagcagt 1320
 ttgagatcaa cctgggcaac atagtggagac cctgtctcta cc 1362

<210> 1603

<211> 2960

<212> DNA

<213> Homo sapiens

<400> 1603

cctgtctgaa gctaatgcct atacttgggc tcttagtctc acccctgcca ctttctcagg 60
 gactaatggg tagcagcgat cctctaactc agtcctttat ttccgattcc acttgctctt 120
 tcccagtcac attaaaatgt gctcaaatct ccttatcttt gaaagaaata ctctggaccc 180

ctttagctgc caccttaccg cactgtgtcc attcacagcc aagcctcttg aaagcattaa 240
ctgccctcag tgtctacttc cctactcatt ttccagccct ctgccccac cacagctgct 300
ttcaccaaat taccaacaac ctcttggttg ctgaaaatca gaggatgttc ttagttcttc 360
acttgaccac cccctttttg aaaaaaagaa tttgcttgac gtctgtagtt tcgcattcct 420
ggtttttccc ttgcctctct ggctcctcct tgtcagtcct tgttcaaaga ggcagtgtctg 480
tctggattag tggtcagcca tggtaactta gaacctgggc ttgggagaca ggtctgggtt 540
catatgcggc ttccacttct cagagtttca gtttcttcaa ctaaaatggc aacatataag 600
tctttttgtg aagccctaatt attaccaagt caatggaatt acccttttaa ggctcgtagt 660
actgtgtttg acacacagta agcaggcatg cactaaactc ccctgactct ccaagcttat 720
aatagggtgt cctcctatgt gctaccatat taccctttat ctttctcatt aggtctcaga 780
gaggaggggc cctgtcaccc ttctccactg tcgtatcagt ctagcacacg gccaggcaca 840
cattaggcac cctggaaata cctgttgact gcttcaagt tttaatatat ggcaaagggtg 900
atactttaa tcagtggggc aaaggattat tgataaataa tgatgcataa ttgataaatg 960
gaaaactatt tgtgaaaata taaaaggtag atccttacca ttactaaag tagttttcag 1020
atggattaaa tagtgacatt aaaaacaaaa attgcccggg cacagcggct caggcctata 1080
atcccagcac ttgctgaggc tggctttgaa ctctgacct gaagtgatcc accgcctcg 1140
gcctccgaaa gtgctgggat tataggcatg agccaccgca ctcgactgag catcattttt 1200
atttcagact gaatgagata taattaatac attaaaaatc aacttatttt atattccaaa 1260
actgtagaac tctaaaatg tatcccagag tcaataataa agttatccac tcacttcatt 1320
agaggaagag tttgagcttt ggtgtcagaa aggtagcacc tggaatccaa gctctgccac 1380
ttaataacta tgacctggg caagctattt atccctcaag tctcagctcc tccatctgta 1440
aaatggtgta ttaatgccta tctcaaaggg ttgtggtgag gtttaagtga gctaacttac 1500
ataaagcact ggctgtaata aggtactcga taattggtag ctgcattcta aaccatcaag 1560
tttactgtta gccacttctc tcttcagagg ttcacttaag atgactgcaa ggtgagaaga 1620
ttcacaacct gagttacgag ctttaagcacc ttaaaatcct ttaggagcaa aggactgact 1680
ttagttactc ttctcccagt agttggcccc attcccttgc tttccatcac tgtataaaga 1740
agctcaattc tggcatgata tgaaacaaac catattttac ttgactcaaa aacttctcct 1800
aatggaggaa taaacactat tgttaggttg gaaactgaat gttagtcaca gatacggctt 1860
gtaattttct aatcatgaga gatgttacct ggatgctgaa aatgccaaa tctcaaaatc 1920

ctgaggggag gattcattac taaataaaga atggctagca caaggaatgg gaaagaaaac 1980
 taagggttttc tgagtgtctt ttccaaggac tctttatagt gctgggcagg ttccattcc 2040
 ttatttaate ttctcaacaa cactataagg tagcatcttt ttaggtacc atgtcctggg 2100
 tcttgctgt tgccctactg tcatcttact ttctattatc tgtattttat ggttgaagaa 2160
 atggaatcca aaggaaggta tttaaattt ctgtgcatgg ttataaagcc agaacactcc 2220
 tcctttctgc agttagattt cttctaagaa tatcccatgc atacctgtc caactgcagc 2280
 ctggcttctc taacaaagcc accatgacct gctgtttgct gaatccatgg tcgctcaggt 2340
 cttcatctta cgtgacctct gtgcagcact ttatactgtt ggccgctccc ctctcttctg 2400
 tgctctctct ttggcttctg tggcaacatt tcctgcttgg cctctttcac cctctagctc 2460
 ttcctttgtg gtgtcctttt ctctcccca aacctctgta gattgcactt cgctcctaag 2520
 gggatctgat ccttgactgg ctacagctgc tatctgcca taattccac acctataact 2580
 ctagcccaga gctgtctttc aggatccagt cctatatatc caacaagatc tggacatgtg 2640
 cctgcctgcc cgagttacct catacagcta actaaaaatt catcacttc cttcccaaag 2700
 tcctcttcca gcagttcctt tttctgccag tggactcacc atcctcctag tcatccaggc 2760
 cagacacggg tgtcatcctt gactcctccc tttgccttag acccctacc aaattatcaa 2820
 gtcttgcaat tctctcttca tttcatctca aaaacaaaac aaaacataaa acacttaact 2880
 ctgtacacta taaaagggtg aatattatgg tatgtgaatt atgtctcaat taaaaaaaaa 2940
 taaaacttaa cctggtttac 2960

<210> 1604

<211> 4556

<212> DNA

<213> Homo sapiens

<400> 1604

cttttcattt cagcctgact gccggaatca gagccgcggg tgagatcccc agccctgtga 60
 gcctgtagga gtagaatggc tccccaaatg tatgagttcc atctgccatt atccccagag 120
 gagttgttga aaagtggagg ggtgaatcag tatgttgtgc aagaggtact gtccatcaaa 180

catcttccac cacagcttag agcttttcag gctgcctttc gagctcaggg gcccttggt 240
atgctgcagc actttgatac tatctacagc attttgcatc actttcgaag tatagatcct 300
ggcctcaaag aagatactct gcaattcctg atacgtctcc tggaatcctt tgagaccatg 360
gccagccaga caaaccttgt ggacctggac cttggtggga agggtaagaa agctcggacc 420
aaggcagccc atggctttga ctgggaagaa gagaggcaac caattcttca gcttttaaca 480
cagctacttc agttggacat ccgtcacctg tggaaccact caataattga agaagaattt 540
gtcagtttgg ttactggctg ttgctaccgc cttctggaga atcccacat taatcaccag 600
aagaaccgcc ccaactcggga agccataaca cacctgcttg gtgtagcctt gaccggttat 660
aaccatatgc tcagtgtac agtgaagatc atccagatgc tgcagcactt tgaacacctg 720
gcacctgtac tggttgcagc cgtgagtcta tgggcaactg actatggaat gaagagcata 780
gtgggagaga ttgtaagaga gattggacaa aagtgtcccc aagagctgag tcgagaccct 840
tcagggacaa agggctttgc agcattcctg acagaactag cagaacgtgt cccagctatc 900
ctgatgtcca gcatgtgcat tttgctagat cacctggatg gagaaaatta catgatgcgt 960
aatgctgtgc tggcagccat ggcggagatg gtgctgcagg ttctcagtgg cgatcaactg 1020
gaagcagcag cccgagacac cagagaccag ttcttggata cttacaagc ccatggccat 1080
gatgtcaact ctttgtgcg gagccgtgtt ttgcagctct tcacccgaat tgtccagcag 1140
aaggctctcc cctgacacg tttccaggca gtggtggctt tagctgtggg acgtctggca 1200
gacaagtcag tgctagtatg taaaaatgcc atccagctgc tggccagttt tctagccaat 1260
aatcctttct cctgcaagct tagtgatgct gaccttgccg gaccactgca gaaggagacc 1320
cagaaattac aagagatgag ggcccagagg cgaactgcag cagcttctgc agtgcctggac 1380
ccagaggagg agtgggaagc catgctgcca gagttgaagt ctaccctgca gcagcttcta 1440
cagcttcccc agggagagga ggagattcct gagcaaattg ccaatacaga gacaactgaa 1500
gatgtgaaag gacgcatcta tcaactgctt gccaaagcta gttacaaaaa ggccatcatt 1560
ctcactcgag aagccacagg ccacttccag gagtccgaac cttcagtca tatagacca 1620
gaggagtcag aggagaccag gctcttgaat atcttaggac ttatcttcaa aggcccagca 1680
gcttccacac aagaaaagaa tccccgggag tctacaggaa acatggtcac aggacagact 1740
gtctgtaaaa ataaaccaa tatgtcgat cctgaggaat ccaggggaaa tgatgaacta 1800
gtgaagcagg agatgctggt acagtatctg caggatgcct acagcttctc ccggaagatt 1860
acagaggcca ttggcatcat cagcaagatg atgtatgaaa acacaactac agtgggtgcag 1920

gaggtgattg aattctttgt gatggtcttc caatttgggg taccacaggc cctgtttggg 1980
gtgcgccgta tgctgcctct catctggtct aaggagcctg gtgtccggga agccgtgctt 2040
aatgcctacc gccaaactcta cctcaacccc aaaggggact ctgccagagc caaggcccag 2100
gctttgattc agaatctctc tctgctgcta gtggatgcct cggttgggac cattcagtgt 2160
cttgaggaaa ttctctgtga gtttgtgcag aaggatgagt tgaaaccagc agtgaccag 2220
ctgctgtggg agcggggccac cgagaaggtc gcctgctgtc ctctggagcg ctgttctct 2280
gtcatgcttc ttggcatgat ggcacgagga aagccagaaa ttgtgggaag caatttagac 2340
aacttggtga gcatagggct ggatgagaat tttccacagg actacaggct ggcccagcag 2400
gtgtgccatg ccattgccaa catctcggac aggagaaagc cttctctggg caaacgtcac 2460
cccccttcc ggctgcctca ggaacacagg ttgtttgagc gactgcggga gacagtcaca 2520
aaaggctttg tccaccaga cccactctgg atccattca aagagggtggc agtgaccctc 2580
atttaccaac tggcagaggg cccgaagtg atctgtgcc agatattgca gggctgtgca 2640
aaacaggccc tggagaagct agaagagaag agaaccagtc aggaggacc gaaggagtcc 2700
cccgcaatgc tccccacttt cctgttgatg aacctgctgt ccctggctgg ggatgtggct 2760
ctgcagcagc tgggtccactt ggagcaggca gtgagtggag agctctgccg gcgccagatt 2820
ctccgggaag aacaggagca caagaccaa gatcccaagg agaagaatac gagctctgag 2880
accaccatgg aggaggagct ggggctgggtt ggggcaacag cagatgacac agaggcagaa 2940
ctaaccgtg gcatctgca gatggaactg ttggatggca aacagacact ggctgccttt 3000
gttccactct tgcttaaagt ctgtaacaac ccaggcctct atagcaacc agacctctct 3060
gcagctgctt cacttgcctt tggcaagttc tgcatgatca gtgccacttt ctgcgactcc 3120
cagcttcgtc ttctgttcac catgctggaa aagtctccac ttcccattgt ccggtctaac 3180
ctcatggttg ccaactgggga tctggccatc cgctttccca atctggtgga cccctggact 3240
cctcatctgt atgctcgtct ccgggaccct gctcagcaag tgcggaaaac agcggggctg 3300
gtgatgacc accatgacct caaggacatg gtgaagggtga aggggcagg cagcgagatg 3360
gcggtgctgc tcatcgacc cgagcctcag attgctgccc tggccaagaa cttcttcaat 3420
gagctctccc acaagggcaa cgcaatctat aatctccttc cagatatcat cagccgcctg 3480
tcagaccccg agctgggggt ggaggaagag cctttccaca ccatcatgaa acagctcctc 3540
tcctacatca ccaaggacaa gcagacagag agcctgggtgg aaaagctgtg tcagcggttc 3600
cgcacatccc gaactgagcg gcagcagcga gacctggcct actgtgtgtc acagctgccc 3660

ctcacagagc gaggcctccg taagatgctt gacaattttg actgttttgg agacaaactg 3720
 tcagatgagt ccatcttcag tgcttttttg tcagttgtag gcaagctgcg acgtggggcc 3780
 aagcctgagg gcaaggctat aatagatgaa tttgagcaga agcttcgggc ctgtcatacc 3840
 agaggtttgg atggaatcaa ggagcttgag attggccaag caggtagcca gagagcgcca 3900
 tcagccaaga aaccatccgc tggttctagg taccagcctc tggcttctac agcctcagac 3960
 aatgactttg tcacaccaga gccccgccgt actaccgcgc ggcatccaaa caccagcag 4020
 cgagcttcca aaaagaaacc caaagttgtc ttctcaagtg atgagtccag tgaggaagat 4080
 ctttcagcag agatgacaga agacgagaca cccaagaaaa caactcccat tctcagagca 4140
 tcggctcgca ggcacagatc ctaggaagtc tgttctgtc ctccctgtgc aggggtatcct 4200
 gtaggggtgac ctggaattcg aattctgttt cccttgtaaa atatttgtct gtctcttttt 4260
 tttaaaaaaa aaaaaggccg ggcactgtgg ctcacgcctg taatcccagc actttgcgat 4320
 accaaggcgg gtggataacc tgaggtaggg agttcgagac cagcctgacc aacatggaga 4380
 aacccccact ctactaaaaa taaaaaatta gccgggcgta ttggcgtgcg cctgtaatcc 4440
 cagctactca agaggctgag gcaggagaat cgcctgaacc cagaggcgga ggttgtagtg 4500
 agccgaaatc acaccattgc actccagctt gggcaacaat agcgaacctc catctc 4556

<210> 1605

<211> 2317

<212> DNA

<213> Homo sapiens

<400> 1605

ccgtctgtcc aactgcagc ccggccctgc cctgctgggc cctgtggtct ttgaggggaa 60
 gggcatgggg gcgtgctgga ccatggggag gggcggcgag gagagcctgg agctccgccc 120
 tgggccagga ttctgcccct tgctctttta gggggaggca ggacacgctg cgcacccggg 180
 ggaaggacgc gccgtggtgc ccaggctgg ggacggagcg gatggtggaa gggttcttgc 240
 cctccgtcca tcaggccatc aggcccctga ggcacacca ccagtcctga gaagatccgg 300
 tgcccacgcc cggccccctc ccccgctcc cgctcctggg cctcacactc tccctcctcc 360

caccccaaac tggacgtcac tttgccccct gccatcccc acgctgttcc tccacctcgt 420
aggtctccct cgcaaccctg tcccttctct cacagcagag cggccggctc ctccccacg 480
ctgagtccca agcaggagac agctttgctg ggagctcaga gagccggcac agccctgtcc 540
gacggcaccc tctgtcggcc cgacagcgaa tgaccgccac ggccagggtcc tgaggttgtg 600
tgcacactca gacgtgaaca cacagacgtg catattcaca cgcacacgca catgcggcaa 660
ctcgcacact caggcacatg cactctcgga tgcgtgcaca cacgtgcatg cgcaccaca 720
ctcaaacaca gggtcacaca actcatacac acacacacat tctccacac acaaacacag 780
ggtcacacaa ctcaaataca gacacacacg ctccacaca cattcaaaca cagggtcaca 840
caactcataa atacacacac agacacacat gctccacac acagccccag ctggccagag 900
cccctgcttc cagggcaciaa gggcgctgat gagagggtgcc gtgggcccctg ccgcctctc 960
ctggctttcg gctgcccga gggctccaac ctagcagcag agtggtttgt tgggggggtt 1020
ctgaaaatcc agaccagaa atgggagctc ctctgggcc agcatcagga tctgagggtg 1080
gggggctttg ggagccgggt ctgacgtggc actgacagca cgttctgcct tctagcaagg 1140
tcccaggagg gcgggcaccg agctggagga ccaggagcct gtgtgcggct gggagtctcc 1200
tgcccagggc tgtctgtgct ggcctgcata gaggcctcca ggctcagaat ccaccaagc 1260
aggccctgcc actcgtacc tccgcaaag accacggggc ctggacgctc ctcccagcc 1320
ttcccaggca ggttccctct cattcccgc cagctcccgg cccctgcgcc ccagccgtgt 1380
caggactgcc acccaagcct ggagctgacc tggcagaggc agtcagcagc tatggccgaa 1440
cagctcctgg aagaaggagc cagcacacgg gcgaatggac gagcatgctc tgccatcagc 1500
gctcactctg cggtgagga gctccatccc gcggtgcacc ttattccaga ctgggggggc 1560
cagggggttg ggctcccaca gctcctgcac cagatcctg cagagctgcc ccacggggtg 1620
cagatggcat ctgggcctgt ctgcagcaga caacaacatg cagaccacac catcccctct 1680
gctggagctg gagaacaagc agaccacca cagtctccct gactcgggt ccaacatctg 1740
cctgaggaaa ggccggggag gtggcaccca gaagctgctg ggagggaagg ggggtgggcct 1800
gcctgccgtg cctgggcctg cgtccccaca tccacatga cggcctccc agccccact 1860
ctgcaaggaa gtgacagaaa ctccacagaa tccagagggc ctaggaatgt tggctcctgca 1920
ggactgtgca gcccaagggg cagccgact gccacctag tcctgtatcc cttctgggtt 1980
ctccactcca gttccctggg aggggctgcc tccttgctct cagagatttt acagctggct 2040
gtggatttta gacggtgctg actggttggg caccgtggtt catgcctgta atcccaacac 2100

tctgggaagc catggtgaca gatcacttga gcccaggagt tcaaggccag cctgggcaac 2160
 acagtgagag ctgggcatgg tgggtgtcac ctgtggttcc agctgctcgg gaggctgagg 2220
 tgggaggatc gactggagtc aggggaagttg aggctgcagt gatctgtgat tgtgccactg 2280
 cattccagcc taggtgacgg agaaagaccc tgtctcc 2317

<210> 1606

<211> 2888

<212> DNA

<213> Homo sapiens

<400> 1606

atctgctgcc tgaggatgga ggaggcggag gtgctgggat tgaaggcaga agagaaagtg 60
 tgaaagcacc caggaggaga atgaatgagc tgatctccag ctgcatcctg ccagagagca 120
 ccgagtggat ctgccaaca cagactgctg ggcaggcatc tgattcagta ggtctgggtg 180
 gggctcgaga atgtgtatct ctaacaagtt ccaggatgac actaatgccg ctggctgggg 240
 atcccacact tccagatgac actggtctgg aggcaggttg cgtggtagcc tcaggggctc 300
 ccgtggtcac cgctgggtgag agcgggtggc aggtttgtgc gttccttgcc aggcattcag 360
 cttgccatct agtttatctg acctgctttt tectgcatgt gggctcatca gccaccctcg 420
 aggggtacaca tagtgacaag ctgcagaaca ttcgtgagtg gggacaaaag ctgagtggaa 480
 atgctggccg ggggtggctca tgtctgtgaa gcatgatctg gctggacctt ttagaggggc 540
 cctggcatca gtttctgggg ttggcagctc ctgctgagca ggctcccagc cacctgtcct 600
 acacagtggc actctgacct tcaactctgg caagagacca tccgttttac ttttctagc 660
 agagggcatc tgggggctga ctgatatctg gcctgccttt gagtcagcct cctcactgcc 720
 agccagaggc atgggatctg gggccacgct tccagtgact gacagcggct gggctcaggg 780
 ctcacctatt cctccgtcct cccaccacct cactgttcag ctgttggtca acattgctt 840
 cctctgcttt tcagcttccc catttgagcg gctgtctcct gccctcttgcc cccaggtctg 900
 cctgggtctca tggaccctgg gagggagcac aagcgtgtgc ccggcacagg ctgtccctgg 960
 gcctgcacac agacctgctg ccccatagc ctgctgggtt cgaggaccag agacaggccg 1020

gatgtattta agcccatgag ggtttgcac tcagtacttt tcctgggact cttcctgagc 1080
cgtactgagt atacgccgct ggcacagtcg tcacacatgg agcagaacat ccacgccctt 1140
cactcctcct tgtcctgtgc caaaaccatg ttcagggatc aaagaggggc acggaacaca 1200
cccggatgac tctgcttttc tgaaattttc tcgcatggaa ttattttgct gatatcttca 1260
ttttgtgatt ctatcctata tggaaagcct atattccatc ttgtcaaag gaaaagtcca 1320
caaattggga ccattttctg tttctaagac cccatagcct ctaggttgct tgccggcaca 1380
gagccgcccc ctctgcagat ggctgtgtct ccacagcctt cctggaagaa cagcctcaag 1440
ggctgccagc atcagaagga catggctggg gagggaggaa gggggaggaa gtgggaactg 1500
ccatggccta tggtaaac acaaaaccaa aaagccttgc ccctctctcc gatttacctc 1560
ccccgacttg aaaagcatga gggcgtcaca gacatcatct gctgatgcct gaaactcctg 1620
tattccacac ccagagacaa gcgcacagtt aaaagtgcct gggcaggtga ggggtgtgatt 1680
cactcaccat ggcaagagt gtctctggca ttagaccctc tgggttccaa tctgggcttt 1740
gccaccttca atactgcctt atggggttat tgggaggatt aaataatttg agtaacgcac 1800
ttatcatggt acaaagtgc aatacatgcc acttttagat taaattaagg attaagtaat 1860
ggacatcaga cagttttcta ggaaaaaag ttaatcatgg aactgcttgc ttctgtagct 1920
gcgccccatc agagagcagt agcgcacccc caccctcacc cccaggtca ttggttcttt 1980
ctgccagacc tgccccactt ccttggttct tctgggaata gcagtccctc cttcaggga 2040
actgctcttc ccattcagat gaagcagctt cagcacacac atgcctcaca catggctggc 2100
tcttctgggg agatgtggaa tttaatctaa aattagcaca ttttgagtca tcagtaatgt 2160
tcccagtggc ctactcaagg gatatagcaa cagggactcc tcattctctt tattgtaagc 2220
tctgatacat ttaatgcatt taattgcttg agtgcatttc atttctaag tataataata 2280
atatcgcca ttattgagct gggcactgtg caaagcactt gataagcatc attgcattca 2340
attatcctgt ttggccctat tataagcctg tacataggct tctcagacac agtttatgac 2400
atgtgaggcg gctgagggtg ggtagaattg cccagggtca cacagctaga gagttgcggg 2460
gcagagggtc catcagacct taatttatga gagtggcatc cagacatttc aaagtcaagg 2520
ataaaaaatg gaactaatct acattctccg aagggtggag gaagacaggc tatgagagt 2580
gactggagag tgacatcaca gcatcaagag ctctgtggac agagagcaaa gcaacgccag 2640
aagacgtgct aaagtcaaag cattaaattg tgtacacaag ctatatattc gtgtcttata 2700
gcctgttcaa acaagtgggt tgtcagtgtc tcaacctgac aaggatctga aggaataata 2760

gaatgcaact ggtactgctt tgtaccccat cagttaatga gtctaggcac tgatcgttgg 2820
tggctctctg aagacaagca gatgtgcgta ccttctaata gaaatacaca ccacttttga 2880
agtagacc 2888

<210> 1607

<211> 4423

<212> DNA

<213> Homo sapiens

<400> 1607

tgctgtgggt cacctatcga tcattctctt atttaggagg gatggagtcg attagaaaac 60
cgatggaaaa tggggattta aagaagaaaa caggaagtct gtttaaagag cccatttctt 120
ttttatgaaa ataaagttaa tcatttccag ccctgtttta tccagcaagg caggagcgcg 180
caggcgttgc cctgagtcgc cagtgcattt gaggagggtg tgatgtgcgc ctggccgtgt 240
gccctcgtgc agcgcctccc atccccgccg tacttgtgcc ccgccagagt tttctttgta 300
caggatagat gacagccgaa gcccttggcc cgagagctct gcgatgggct cagcgctcct 360
gcagcagccc aggcctttca gaatcccact gccacccaa gccctgtgct ctgcctgcct 420
gtcctgggta tcccgttgac aaagggcaga cagtgaaggg cacaagatgg ctccagacca 480
ggggatgcac ccagctccgg ctctcccctc ctactctcg tcctgctcac cccctctttt 540
ctctcctggg ctccccttat tgcctctgcc cgggcaccac ggggcttatg gtatcttcta 600
cacacgttgt tttactaag gcatttgggg ctggcacttc agatcgtaaa tttcttacct 660
tctgttacag tcctgtagtt ttctgctaa aaacattcag cacgtcctc ctctctgcag 720
cccatagccc aggtacctta gtgcagggtg gaggaagcct tgggcaacct gctctgtgat 780
gagcaaccta ttctcctaag agcccagacc ttccaccgcc ctgaggcctt gaagcacctt 840
ggggatggcc ttctgcctc tgcctgggcc ctgctgctt ctgtctggaa cttctcctcc 900
cagtccacga gagatggctt gaatcttgct ctgaagacag ggctacaatg ttgtttcggt 960
tttacatctt tccctgaata ttctttcctg aatgtatggc ttctttgtct ctgtgtcttg 1020
tcaccttatg ttgtatccaa gacgttcggc aaacacatct ttgttgatta cttattcaat 1080

ccaaggcact gtccggaaga tgggacagag aagaggaagg ctgagtctgt cccctcgaag 1140
cccgtgccc agttctgcag tatagactcc cctctcagcc cctgagtggc caggaccctg 1200
tgtctgcatg tgcccagcac cctgcagagt gccctgcatg ctgccaggac acggcgactc 1260
acatggccgc acaggctgcc tgcccagggt cagcacctga aacgtcgatg ttcaataaat 1320
atttgttgca ttaaactttt acagcgggtg ttattgatga cattttttaa aatttaatat 1380
gcaaggcttt cattcttttt gctgaataaa caaatatacc atatataata tttggtcatt 1440
aaaaaaagat tttccgttgg gttaggagat actactgctg gctgtttgct gaactttact 1500
tagcaccctg gacggaacgc attgttacia aagacatgat ggtggttggg gggagggtatc 1560
cagcctcctt ccctgggcat tggagaggcg cacaccctg caaagagttg tattggacag 1620
ctcacagggc tgtggggaaa tgcacacca gtattaactg tgtgtgccct tgagcctaga 1680
gcctgcctgc agatgccac ggaggcctct ggccctgctg aagcttgac tgtagatagc 1740
tcttcagggt ttggaatagg gggctcgtgt gactctgctg aggctgagc gcttctgcag 1800
aagaagtgtc ttacttgtaa gcctacgagt actttttcca ggctctaact ggtccctgtc 1860
tcccttaggc attgtttcca agtcgtacga gtgccgtcta aagggacaag gagccacctt 1920
cgtggagaca gacagcccct tcaccgcggc ggcccttgga gaagagccc tcgtcaagga 1980
gaagcccctc agaagcagca ggaggccagc gccgccccct gagcaggtgc agcaggtcat 2040
catcttccag ggctacgacg gggagtgtgc cctggacccc tcggtggagg agacggccgc 2100
cgccacgtg cagacgtgg ccatggccgg ccaggtggcc cgggtggtgc atatcacgga 2160
ggatggccag gtcacgcca cgagtcagag cggggcacat gtaggcagcg tggtgcccgg 2220
acccatcctc cccgagcagc tggctgatgg agccaccag gtggtcgtcg tggggggctc 2280
catggaaggc cacggcatgg atgagtcctt cagtccaggt ggcgctgtga tacaacaggt 2340
gaccaagcag gagattttta acctctcgga ggctggagtc gtccccccg aggcacctc 2400
agccctggat gcattgctct gtgcggtcac tgaattaggg gaggtggagg gcagggtgg 2460
gctcgaggag caaggcaggc ccggcgccaa agacgtgctg atccagctgc ccgggcagga 2520
ggtctcccat gtggctgccc accccagggc ccccgagatc cagatgttcc cacaggccca 2580
ggagagcccg gccgccgtgg aggtgctcac ccaggtggtc catccctcag cagccatggc 2640
ctctcaggag cgggcacagg tggccttcaa gaagatggtc cagggcgtcc tccagtttgc 2700
tgtgtgtgac acggccgcgg ccggccagtt ggtcaaggac ggtgtcacc aggtgggtgg 2760
gagcgaagag ggtgccgtcc acatggctgc cggggagggt gccagatca tcatgcagga 2820

ggcgcagggc gagcacatgg atctggtgga gtccgacggg gagatctcgc agatcatcgt 2880
gacagaggag ctggtccagg ccatggtgca ggagtccagt ggcggcttct ccaagggcac 2940
cacgcactac atcctgacag agctgcccc agggtgag gacgagccgg gcctgtactc 3000
ccacaccgtg ctggagactg cggactcgca ggaactcctg caggccgggg ccacgctagg 3060
cacagaggcc ggggccccaa gcagggcaga gcagctggcc agcgtggtca tctacacca 3120
ggagggctcc tcggccgcgg cggcaattca gagccaaaga gaaagcagcg aactccagga 3180
agcatgagac gcgcggcacc ttactcagc acagggcagg tgtgggaagg tccagcttcg 3240
gtgggggacc gtgttcctg agcttcatct gaaaccttca aaaccatgag gacaaggctc 3300
ccgtgagctc tgagcatgcc ctcccagcga gagtacact ggccaccagc caggcgccca 3360
cagaggggtac cgtgggctgg gcctcgggga gcaggctgcc aagtgcaggg gagggccggg 3420
cgcaggccgc acagggagct ccggtccact gggggccctt cgatcagtgg cctcccgctt 3480
cgtcctggcc gctgtgctga agagaagcca agtgtgttg gtgttttct ctccaagtg 3540
ttttccatt tcagttatca gaaggtcatg gccgtgggga aagtggtgaa gatacccctc 3600
gtggcttggg gtgcacctg ttgtgcagtc agcatgtagc tgcctttcca tttcattctc 3660
tactgggcta aaaattgcag ctacaagtgt taccatcttg aagcagtcca cttcattca 3720
atTTTTTTTT ttaattttag aataacagtg tccccatacc aaaggaagcc tgctagctca 3780
tttcatgtat aaatttccca tcttcaaaca gtttaggtgt atttgttact ctggtcacat 3840
tctgcataaa agaaatcctc ttaagcctat ggttaagaaa agccttgaag tttatattca 3900
gttaaaatat atgtcgggtg agatagccag tgcttctaatt ttgacttag tttcatacag 3960
taaagcctaa atgtgaaacg cacacgtgg aagatattgt tcctatcaat attttgcttt 4020
ttataacaag ggtttgttca tattgatgcc atttttgcag gatttcttcg tgatttctgt 4080
ccatatgaaa atgctgacat taaacattaa cacatggaga ccgtgccctg tggccctgcc 4140
gtggctgcca gcatggtctg tgtttccttg tggattcacc tgtggccctg ctgtggccac 4200
cagcatggtc tgtgtcctcg tggattcact gcagctgtcg gatgcgagtt tctgtcataa 4260
tcatttgttt cctgatacaa ttgttcttat tcttttccaa aactgtaaaa taatctcctc 4320
cctcaaatgc aaaggttgtt ttgttctgt ttctgttttc ttgaaataa aattataacg 4380
ttaaaagata aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aag 4423

<210> 1608

<211> 3315

<212> DNA

<213> Homo sapiens

<400> 1608

```
ttttagtaga gacgggggttt cactgtgtta accaggatgg tcttgatctc ctgacctcat    60
gatccacccg cctcagcctc ccaaagtgtt gggattacag gcgtgagcca ccacgccctg    120
ctagaataat ttttttttag agacggagtt gcgctctgtt gccccggctg gagtgcggtg    180
gtgcgatctc ggctcgtctg aagctctgcc tcccagggtt cagcaattct ccagccttgg    240
cctccccagt agctgagatc acaggcgtgc accaccacac ccagcttttt tttgtgtttt    300
tagtggagac aggatttcgc catgttggcc aggttggaga ttttattttt cttagtctc    360
actctgtcca gctggagtgc agcagtgtga tctgggtgac tgtagcctct gcctccgggg    420
ttcaagccat cctcccacct gagcctcaga gttgctggga ttacaggcgt gaaccaccgc    480
ttcccactag gtttttgtat ttttagtaga ggttgggttt caccatgttg gccaggcttt    540
ggatatccgtg taccctacac ctgctctccg tgccacatgc gcccgcaggt tacgccaagg    600
aggccctgaa tctggcgagc atgcaggagc agacgtgca gttggagcaa cagtccaagc    660
tcaaagctgg agtgcaatgg cgcaatctcg gctcactgca acctccgcct cccgggttca    720
agcgattcat ctgcctcagc ctctggagta gctgggatta caggcacgcg ccaccacgcc    780
tggttaatgt tgtatttttag tagagacggg gtttctccat gttggtcagg ctggtctcta    840
actcccgacc tcagtgatc caccgcctc ggctctcaa actgttggga ttacaggcat    900
gtgccaccac gcctggctaa tgttgtatit tagtagagac ggggtttctc catgttggtc    960
aggctgggtct ctaactcccg acctcaggtg atccaccgc ctcggcctct caaactgctg   1020
ggattacagg cacgcgccac cagcctggc ctattttatt ttattttgag acagagtgtc   1080
actctgtccc ccagtctggc gtgcaatggt ttgatctcgg ctactgcaa cctccacctc   1140
ccgggttcaa cctcctgcct cagccttccg agcagctggg actacaggag cctgccacca   1200
catctggcga atttttgtat ttttagtaga gaaggggggt cagcatgttg tccaggttgg   1260
tcttgaactc ctgacctcag gtgatccagc cactttggcc tcacaaagtg ctgggattat   1320
aggcaagagc gatggcgccc ggcccactca gcaggattcc tagaatgggc acgagctctg   1380
```

ccctcatcac agtccaaaag tgagcacctg cctggagctg cccagaaaca gccttgtggg 1440
gtgggggttg tgtctgacct ccctccccgg gggccttcgc aggcttctct gctgggtgctt 1500
ctgtgcctgt gggctctggat tcctccaggg cctgatcctg ggtgcagatg cagctggaag 1560
ccctgaacct gctgcacaca ctagtctggg cacggagtct ctgccgtgcc ggagctgtgc 1620
agacacagga gcggtgtca ggcagtgcc ggcctgagca agtgccagct ggtgagtgt 1680
gtgctctgca ggagtatgag gccgccgtgg agcagctcaa gagcgagcag atccgggcgc 1740
aggctgagga gaggaggaag accctgagcg aggagaccg gcagcaccag gccgtaagag 1800
cgcaagaggc cgcgagggag gccgccggc tgcggggagc ggcctggggc aggactggga 1860
gctgggtgtg gtcccgggc actctggagt cagccattag agctgccctc ggaacggcct 1920
tgacaaaacg cctaagacct gtaaggtccc tctactgtga gccggacggg aggtccccgc 1980
gcctccccac gtttgtgtga ggctgatggc gcgtcggagt ccccggcgct ccgcccagtc 2040
ggcccagact gcagctcccg gctgagatgt gtctttgccg ccctcttctc cccagagggg 2100
cccagtatca agacaagctg gcccggcagc gctacgagga ccaactgaag cagcagcaac 2160
ttctcaatgt ggagaattta cggaagcagg aggagtccgt gcagaagcag gaagccatgc 2220
ggcgagccac cgtggagcgg gagatggagc tgcggcaciaa gaatgagatg ctgcgagtgg 2280
agaccgaggc ccgggcgcgc gccaaaggccg agcgggagaa tgcagacatc atccgcgagc 2340
agatccgcct gaaggcgctc gacgaccgtc agaccgtctt ggagtccatc aggacggctg 2400
gcacctgtt tggggaagga ttccgtgcct ttgtgacaga ccgggacaaa gtgacagcca 2460
cggtaaacad attcataaaa cagggtctggc aggtggctga gaggcagcat gtgggggcct 2520
cctggagccc caggtcctgt ccctgccggc tctgcacagc cctgtagctc tcccagcaca 2580
gagcaaacc acgttgtacc tgctgggctc ggctgtcct cctccttga gctgggagaa 2640
aaaaatgcag ttgccagcct gggccacacg gtgagacccc atctctacgg agaataaaac 2700
attagctggg tgtgatggtg gcgcctgtgg tcctgtact cgagaggctg aggtaggagg 2760
atcacttaag cccaggaggt ttgggctgca gtgagccaac attgcaccac tgcactccat 2820
tcttggcgag agaataagac cttgtctcaa gaaaaaatg gccaggcggt agtggctcag 2880
gcctgtaatc ccagcatttt cggaggcgga ggtgggcgga tcgcgaggctc cggagatcga 2940
gatcatcctg gtaagggtga aaccctgtct ctactagaaa aaagaaaaaa aaagaaaaaa 3000
attggctggg tgtggtgaca tgtgcctgta atctcgggag gctgaggcag gagaatcact 3060
tgaaccggg tgggtggaggt tgcaatgagt cgagatcccg ccactgcacc ccaagaccag 3120

catgaccaac atggtgaaac cccatctctg ctaaaaatac aaaaattagc aggccaaggt 3180
ggcgtgcgcc tgggggccca gctgcttggg aggctgaggt aggaaaattg gttgaaccca 3240
ggaggcggaa gttgcagtga gctgaaaccg cacaattgca ctccaacctg tggaagaaga 3300
gcgaaactct gtctc 3315

<210> 1609

<211> 3129

<212> DNA

<213> Homo sapiens

<400> 1609

aaacccgtca atatggcggc gatcgccgc ggccgctctc tgaagaacct ccgagtacga 60
gaaccttctg ataacttaag agagattctc caaaatgtgg ccagattgca gggagtatca 120
aatatgagaa agctaggcca tctgaataac ttactaagc ttctttgtga tattggccac 180
agtgaagaaa aattgggctt tcactatgag gatatacataa ttgtttgcg gttagcttta 240
ttaaatgaag caaaagaagt gcgagcagca gggctacgag cgcttcgata tctcatccaa 300
gactccagta ttctccagaa ggtgctaaaa ttgaaagtgg actatttaat agctaggtgc 360
attgacatac aacagagcaa cgaggtagag aggacacaag cacttcgatt agtcagaaag 420
atgattactg tgaatgctt cttgtttcct agttctgtga ccaactcatt aattgcagtt 480
ggaaatgatg gacttcaaga aagagacaga atgggccgag catgcattgc cattatctgt 540
gaactagcac ttcagaatcc agaggtgggtg gcccttcgag gtggactaaa caccatcttg 600
aaaaatgtga tcgattgcca attaagtcga ataaatgagg ccctaattac tacaattttg 660
caccttctta atcatccaaa gactcgacag tatgtgcgag ctgatgtaga attagagaga 720
attttagcac cctatactga ttttactac agacatagtc cagatacagc tgaaggacag 780
ctcaaagaag acagagaagc acgatttcta gccagtaaaa tgggaatcat agcaacattc 840
cgatcatggg caggtattat taatttatgt aaacctggaa attctgggat ccagtctcta 900
ataggagtac ttgcatacc aaatatggaa ataagggtag gtaaaagtta ttaggattgt 960
ttcattcctg gacctttaac agtgggaatt aattataaaa aataaattat ttcaggtgat 1020

gtgttttcct cattagttgt taatctagac catattttta aaatacagaa gtaaataattt 1080
actacttagt taaaccctaa atataatagg aatcatttaa aatattgctg ttgtctgggc 1140
acggtggctc atgcgtgtaa tcccagaact ttgggaggcc gaagtgggtg gatcacgagg 1200
tcaggagttc aggaccagcc tgaccaacat ggtgaaaccc catctctact taaaaaaaaa 1260
aaaaaaagtg caaaaattag ctgggcatgg tggcacacgc ctgtagtccc agctactcgg 1320
ggggctgagg caggagaatc gcttgggccc aggaggcaga gggtgcagtg agctgagata 1380
gcgccattgc actccagcct gggtgacaga gcgagactcc atctcaaaaa aaaaaaaaaa 1440
attgctgttg ttaggaataa tggctgtatt aaaaattgag ttgaggccgg acatgggtggc 1500
tcacgcctgt aatcccagca ctttgggagg ccaaggcagg taggtggatc acctgaggtc 1560
aggagttcga gaccagcctc ctcaatatgg tgaaaccccg tctctactaa aaatacaaaa 1620
agttagccag gcacctgtaa tcccagctac ttaggtgggtg ggcacctgta atcccaagta 1680
ctcaggatgc tgaggcagga gaatcactta aacctgggag gtggagggtg cagttagcca 1740
agatcgcacc attgcactcc agcctgggca acaagagtga aactccatct caaaaaaaca 1800
aaaaaaagtt gagttgaaaa tatgaacttt attatgcttt attcattaaa acaatataaa 1860
caacacacaa gggcattctc actataaaag gttcaagcac tacagactac gtttaacaaa 1920
aggtaaattg atttatgcct tctaacttat gttttgtaat atgtgggtgag attttatatt 1980
aacgatgggtg gttttgatta aaatggaatt gttaatatatt ctatatattat taggtatatt 2040
tctaaattat ttgtaagaat ttgtattata cagttaaadc gaatttgaag gaaaagagaa 2100
ttcttaaagt gatttttttc ctttctcctt aaatgttttt atttgtttta attttgtttc 2160
tttcttttgc ccttccttat atgaacccaa cctggagggtg aaaaatatta ttagaaaata 2220
ttagccaggt gtgccttggt taaatgtgaa ataaaaagta ttagataat ggaaatggaa 2280
ggatataatt ataaatggaa agatctgtaa gcaggtaaca aacttgagat aattcacttc 2340
ttactgtaat aggtggaaaa agaacatggc ctttggagag tctgaccaac tggagttaa 2400
cctctgggtt tatttacttt ttgttagct ccatgacctt gggacaattg cttttttgca 2460
caattagggt aatgaaaaat ttaatgacta gattaagtga tgtatgtagt agtaagcatt 2520
tagttatccc ttctctaata taggccttat acagtttcaa aatatgggtat aatcatgcat 2580
tggttaatga taggaatgtg ttctaagaaa ctactgtta gatgatttca tcctgtgaac 2640
atcccagagt acttacacag acctagatgg tacagcctac tacacaccta gggtatgtgg 2700
tatagcctgt tgcttctaag ctacaaacct gtatagcatg ttactgtact gagtactgta 2760

ggcagttgta acacaatgga attcgtgtat ctaaacaatct aaacatagaa aaggtacaat 2820
aaaaatacag tataaaagat taaaaaatact ggccggggcac agtggctcac acctgtaatt 2880
gcagcatttt gggaggccga ggcggggcgga tcatgagatc aggagatcga gaccatcctg 2940
gctaacacgg tgaggcctgt ctctactaaa aatagaaaaa acagccgggc atgggtggcag 3000
gcacctgtag tcccggctac tcgggaggct gaggcaggag aatgggtgtga acccgggagg 3060
cggagcttgc agtgagccga gatcacgcca ctgcacttca gcctgggcca cagagcgaga 3120
ctccatctc 3129

<210> 1610

<211> 3023

<212> DNA

<213> Homo sapiens

<400> 1610

tgtgttcatg aggggcctgg atgccgtacg ggccggacgca gagtctcaga ggagactgca 60
ctggaagctg acagcacggc ccttagagtc aaatttcgtc tgtccatttg ctcagtagcc 120
ctgggtcttg actcacaggt ggaatgggag tgcaaaactca gtacatgaag gacagaactg 180
actgtccctg gaccataata gaaactcatt ctagaagttc aacatgaaac tcattctaga 240
agttcaacat gaaaaagtta ggaagaacag ctccaagcag aaaatcctag gggcatggaa 300
ttccaccacc agcattcacc ttggggcatc acggtgggga tccccacgca ggctgatgca 360
cagagggagt gtggagtggc tgcactccct cacatcccgt ttcctggtgg tattgaacag 420
catgttgcca gctgttctgg cccagagca accttgcagg gaggtcccag ggggtggcgt 480
gtgcctcttt gagcacatgc aggcctatgg tggggccccg caccggcct gtgtgtgagg 540
aggggctgct cagcatcccc actgtgcctg gagacagggc cgggatgtgg tgacaggatg 600
gtcactcagg tgtggccagt cagtgaacaa agctgctaac agagttcact ttgtcctcag 660
ctgctcccgg aactgaccaa ccctgatgag ctactgtcct acttgggccc acccgacctc 720
cctacgaaca acaatgacga cctgctttct ctgtttgaga acaactgatc ctgtgtttac 780
cccaagcccc gcggggacac gtcacagat gtcaccacag ccctgccctt catgcccagc 840

cccatgggac acccggtggt ctttcccaaa cctcccccaa aacacacctg gagccagagc 900
cttctgccgc cagccctgcc cctgaattgg aagcagccct gtgctcgatg ggaggggctc 960
ccaggccggc agcccttgcc acctccctct gccaaagcctg ctgctgcaga acggtttttg 1020
ctgaggtgcc cctgcccagc cctgtccagc cttgtccaca cacacatctc acgcccctgg 1080
tctcacagcc tcacaccttg tccttccacc cctgcctgcc cccaccagc ctgcttcttg 1140
tccagcattg atccttctgt ttcaacaact cctccactgg gcagagctgg gcatctggca 1200
gggctggctc tgtcccctgg gcctttggct ccagtggccc ctgtgcccag cagtccagct 1260
cttggaacct cgctgaatgg cagcctcttg ggggcctgga gctctggcag cccagccgtg 1320
tgtggtgtca ggttctctc cccaccccag cttcaagcag aggctcggg gtgggggagc 1380
tacaaagcac aacaatgtac atagtgtaga aacactaaca gctgggagag gggagccagc 1440
tgtccagcca gcatgttctt gttgtacagc ccggtctccc tgcgcgctct gctccttccc 1500
atgtgcagac agatcaggga ggaacctcca atgggtgggg gacagtgagc ttcggcctgg 1560
ccgaggtggg tgggtgggct ctcagattca gctctgtgta aagattctct agcgggctgc 1620
gctcccaagt tccccttctc tgtgaaagtg aagaattagt acagctgtgt tttttaagc 1680
cacctctctg tctccacccc atgggcccac acccaggtgg gggaggagga agccactgca 1740
tctgttggct cagggcccca gcctgtgcaa gcagggcgcc tgggctgttg tgtctctgt 1800
ctgtgccgat ctctattaaa ggactccctc ttggtgggcc tggccgagtc cctcctttgt 1860
gctcccaggg actattttct cctcgtaagc cagcgacctg cctaaagctt gggctgtgcc 1920
tgcaaagctt gtgcaggacc tgggggccag gtcgaccctc aggtggcttt tggggcccca 1980
ggttgagctc tggatgtttc aagccaaggc tcggctattc ccgccccata gtaaatttcc 2040
ttttccctgg aattttccaa gttggcttca gctgaagagc tgttttgtga agcatcccag 2100
gcttgcccag gagagacatt tgccactatg tcacctatc tgggcttgcc ctggggcact 2160
gagacagttg tttggcagcc ccagcccagc caggggctca tccttctcag ctcttgtccc 2220
tgggaggcct ctgcttgtca cttcccagag attgcagagg tgtgtcctgc ctaccatctg 2280
cctgtccagc ttggtggggg tccgggtcac catttcctcc agtctggggc cccatccttg 2340
agggccttcc cagccagcca gcaggagagg caagaactgg gggaacacag gaacctaggg 2400
gaggagggga gcgctgggca tcctcaggct ggcgccaag gcctgcccct ggaggcacta 2460
gaggagggca tctgtctgtg ggagcccaga ggctgcaggg aggaggagga gggaggtatc 2520
tggtgtgagc gttgcccctg cgacatttgg gaccacacag gtgggcttcc ttattccctg 2580

acaaagcctc tgtttccagc tcttccgccc tctctggatg agggaacaga agtggaggaa 2640
acaaaagaag cagcagcacg cacagtcctg tcgctgggtg cggagacagc ctggcaaagt 2700
cccactcagc catggcctga tgcaggcccc aggccctcct ttcttgggtg tcaaatgact 2760
gtgtcctgga catctgatgc accacctgcc ctgcctgttg caaacgtgat gctcccggat 2820
ggagtggaga aactaggaga ctgggacaag caaaaggctg caaacaaccc agaagcccat 2880
cctcagaaga ctggagaaat gattgaggaa tgcatgggca ccgtggccct gtgctccatc 2940
acaaacacct ctcagaaaca acgtgggatg aaaaagcaag acagttcata cagtatgatg 3000
ccatttttat aaagctcaaa acc 3023

<210> 1611

<211> 3691

<212> DNA

<213> Homo sapiens

<400> 1611

gtcgccgtca ggcactgagg aggccgagag atgaggccgg agcccaccaa gttctgggaa 60
gttctttctg acacaagtaa gataacatct ctgccatgga atccctaaca ctggaggatg 120
tggctgtgga cttcacctgg gaggagtggc agttcctgag ccctgctcag aaggacctgt 180
accgggacgt gatgttggag aactacagca acctggtggc agtgggggtat caagccagca 240
aaccagatgc actctccaaa ttggaacgag gagaagaaac ttgcacaaca gaagatgaaa 300
tctactctcg aatctgttct gattcaggag gtgcatcagg aggtgcatat gcagaaatca 360
ggaaaattga tgatcctctg cagcatcact tgcaaaatca aagtattcag aagagtgtga 420
aacagtgcc a tgaacagaat atgtttggaa atattgttaa tcagaacaaa ggtcatttcc 480
tgctgaagca agatttgtat atgtttgact tacatgaaaa acctttaaaa tcaaatttaa 540
gttttgaaaa ccagaaaagg agctctggcc taaagaactc tgctgagttt aatagagatg 600
ggaaatccct ttttcatgct aaccataaac aattttatac tgaaatgaag tttcctgcaa 660
ttgcaaaacc tattaataag tcccagttca ttaagcaaca gagaactcac aacatagaga 720
atgccccatgt atgcagtga tgtgggaaag ctttctcaa gttgtctcag tttattgatc 780

atcagagagt tcacactgga gaaaaacctc atgtatgcag tatgtgtggg aaagctttct 840
ccagaaaatc cagactaatg gaccatcaga gaactcatac agaactgaaa cattatgaat 900
gcaactgaatg tgacaaaacc ttctcaaga aatcacagct caatatacat cagaaaactc 960
atatgggagg gaaaccttac acatgtagcc aatgtgggaa agccttcac aagaagtgtc 1020
ggctcattta tcatcaacga actcatacag gagagaaacc ccatggatgc agtgtatgtg 1080
ggaaggcctt ctctacaaag ttcagtctca ctacacatca gaaaactcat acaggagaaa 1140
aaccttatat atgtagtga tgtggaaaag gcttcattga gaagaggcgt cttattgcac 1200
atcatcgaac tcatactggg gagaaacct ttatatgcaa taaatgtggg aaaggcttca 1260
ccttgaagaa cagtcttacc acacatcagc aaactcatac aggagagaaa ttatatacat 1320
gtagtgaatg tggaaaaggc ttttcaatga agcactgtct catggtacat caacgaactc 1380
atactggaga gaaaccttat aaatgcaatg agtgtggaaa gggcttcgct ttgaagagcc 1440
cactcatcag acatcagcga acacatactg gagagaaacc ctatgtatgc accgaatgtc 1500
gaaaagggtt caccatgaag agtgacctca ttgtacatca gcgaactcat actgcagaga 1560
agccatatat atgcaatgat tgtggaaaag gcttcactgt gaagagccgc cttattgtgc 1620
atcagcgaac tcatactgga gaaaaacct atgtatgtgg tgagtgtgga aaaggctttc 1680
cagcaaagat ccggctaatt ggacatcaac gaactcatac aggagagaaa cttatatat 1740
gcaatgaatg tggaaagggc ttcacatga agagtactct cagtatacat cagcaaactc 1800
atactggaga gaagccatac aaatgcaatg aatgtgataa aaccttcagg aagaagacat 1860
gcctcataca acatcagcga tttcacacag gaaagacttc ctttgcattg actgaatgtg 1920
gaaaattctc tttgcgcaa aatgatctta ttacacatca gagaattcac acaggagaga 1980
aaccgtacaa atgcagtgc tgcgggaaag ccttcactac aaaatcaggg ctcaatgttc 2040
atcaaagaaa acatacagga gagaggccct atggatgtag tgattgtggg aaagcttttg 2100
cgcacttgc tacccttgtt aaacacaaga gaattcacag gtagtcattt tgggaaagcc 2160
tcttgccaga ttagggcct taagatatct gcaaagaaga gtaatttcac gaatgcagac 2220
tacatgggtt tttatttagt gatcagttac ttcattgttt gtgtcagaga aaacatgtac 2280
aaaacatttg agaaaatatt ttaggacatt atgtctaaaa attgtatact gagaaaaatc 2340
ctatgaatgt ggcagactat aaaagccttt ggtgggaaga taaacccct cagaagtgt 2400
catagatcat gaataaacta ctaattcgtg gaaatgtaat aattatagga acgtctttgc 2460
ccaaaaataa aacctcaaca gattgagaga gttcacactg gagaaatact ttctctggc 2520

agtgaatgtg gcagggtttt cagtaaaatg ttttgcctca tcgtgtgcta ggaaataatg 2580
 cagaaaaaaaa ctaatgaaaa cattcaatgt agaagacttt taggaaaaca acagagaatt 2640
 taatgaagga aagaagcctt ggcaaaatga tggatgagag ctttctgtca caattctaac 2700
 cttaacagat aatatgcctc atgtgcattt gggaacagga tagcttgagc catattccta 2760
 gttgccttgt cactgatttt atacatttta aattgtgact tcctctaate acgaactaaa 2820
 atttaatat gatatataa ccggagtatt ttatgcctgc ctcatTTTTat tatatgatta 2880
 gctcctgcat ttcttttagt ctaagtttgt gttatttcag aataactaaa gtacttcaga 2940
 atgaaactgg atacagtata ttcaattcat aagtgtatt gaccatactt gaatatgttt 3000
 aagtttataa gtaacaccag gtgttatgaa attaatataa ataagatgtt tttgtaagtt 3060
 tttattttga aataagttta gattcacaaa atcttaccaa aatattccag agttcttgaa 3120
 tgcccttaac ccagcttctt ccaaagataa caacttacat aagcatgggt cgttacacaa 3180
 tacaggaaaag tgagattgtt acaatactgt tgactacaga atttatttgg aaatcaccag 3240
 ttttaacatg cttttttgtt tgttttttat atgtagcttt aagaaatctt aacacatata 3300
 ttgattcatg tcaccaccac cgtaatcgag attcagaatg ttgcatcaat gcaaactccc 3360
 tcatgctcct tgtttatagt cacaacctct cctcagccct aacccttggc aatcagaaat 3420
 cttttcatct ttagttttgt cattagtagc atgttataaa aatggaatca tacagcatgt 3480
 acccttttgg tattggctat ttcaactaaa gcagattaac ctgaaatcca tccaagttgt 3540
 tctgcatatc attgttctgt ttttattggc cactaataat ctatgatacg aatataccac 3600
 tatttgttta ttcaccact gaaggacatt agttttgttc ccggtttttc ttactgttac 3660
 aaataaaaat cctatgaaca tttgtacaca c 3691

<210> 1612

<211> 2851

<212> DNA

<213> Homo sapiens

<400> 1612

tgctctacc cttgggtttt tggatcccag cacacagtct tgtttttagta ctcatTTTTct 60

tgaaccatcc tctatagtcc agcttgggaa agtcaagaac aggcacatgt gggggaccac 120
ctaaacagcg ggttcatcca cccgggctgc agagccccag gctgctgtgt ctgcaccact 180
gccaggtgct gaagcgtgga gaggatgggc tcaggcctgc ccatgaaccc tgtctgatgg 240
gtcaggaggg ggctttcccc aggatctcag ggagtaccgt cttcagcttg gacaaaaatg 300
gaatcactgt ttattttgac tggtcagtat cagggttcag attgtccttg ggttgggcgt 360
caggatcagg gagaaaagat ctgggctctg gggttagtct gggtagagga ggagcaggcc 420
ctccagcagg cagccctgca ccaagtgtgg gattgcccag caccactggg tttgcagagg 480
cgcccgacc cccagccga agggcacgac cacagcattg gagtctcagt tctgttttta 540
gggccacagg cccctgggct gccaccactg gagctagtta gctgaatcgc caacagaagc 600
gtttacagct aactcatccc tgtgccaact cccattctca ggagtccagg agggatatgcc 660
ttcccactgg cccaggccac tctggctctg tcaacaaagg ccttctccgt caagcagaag 720
ggaacttgct tggctgtctt ctgataaagc cagccatgtt aggtattgag tagctgggtca 780
agcaggatcc ttctggggcc tgatgagaac cctctctttt ccagggtca tctacagcct 840
attgggatac cagtatctcc cagcatatct agagggtaat gtgtccaggg catatttaga 900
agccctggac ttctgtccct gtacctgttt tatctttttg gcctgtctcc atctgtactt 960
gggatttggc cctggtttcc cccttgccct tggccatcgc tgtcctcccc cagagtgtga 1020
gtggcctgct ctgggggtggg gcacttcccc tgggctctaa caggcccca gagaaagcca 1080
tcccaattt gtttggtata ctcacctaag gaacatcaag tgtaacggcc ttatttcatt 1140
gcctgttttt ataagaagca cagtcattcg taaagtggca agtagggggg tcacttacct 1200
gtgggctatg ccctttgggt ctggtcattc ctgtgtcctc tcctggctgt cctggaaact 1260
gtcgaacaaa gctctaggag cagtcctctc ctattcttcc tgacaagctg tttccagccc 1320
ctggagctag aggtaaagtt tcatactctc gcccttcata tgcatttgtg cagccaacat 1380
cggctatttg gaaatctgtc atttcgtctc gatgctagtg ctgctgtctc cttctccctc 1440
agcagccaca gcagcagttg cttctgtctc gatgtgatgt ccgatccctg atgtattttc 1500
ctgagcttgg aagggggagg gtgaggaggg gaggaagggg agggccagac attacgagag 1560
tgagcaagga ctgtggagcc agcagcaggc agcgtggagc ccaggagcct ttagacaaag 1620
cattctgctg cggctctgtc agcgcgcaca tccaccggca gcaggcagga ccacagctgc 1680
ccggctgggg gattacaagc aagaatgaat cagcaccggg ggacacttga cttcatgggc 1740
atagaagaac ctgccacgta ggctcctgga gcagacttcc ccattcaagg gcaggggagc 1800

tcaagtatcc cccagactcg gcatcttgga gcgctgcggc agcgtgcatc cagaaggccg 1860
 ccgggtccct gaccatcatc tgttctgcag gagacagagg agagggagtg gaggctggca 1920
 gagtttgtca ccagggtctt gtagataacc aaggaagtig gcattgtcct gcccgaaggg 1980
 gcagaaaagta cctgggaacg gcagaatgac tttcaccgtg tcaggagttc actggaggtg 2040
 atgtgtttat agttggttct tccttttcct tccttgtagc tctttttcct ctttttctact 2100
 tttttctttc tttcatctgt tcttgccac aagaatcaga gaagtaggtt ggggttcagg 2160
 catccagctc agaacatcca aggtctgcca gaaagggtg aacttctgtc ctccctgcac 2220
 caccaaaaac cccatgctga tcgaggagca aatagatgtc ctcccttccc tgctcatcct 2280
 tagaggagaa cgccaagatc cagagaccct gggacgactg tggctgtctt tatcactcag 2340
 ccaaagagag aacagcacag gacgtgaata gacttaagcc gccacagctc agctgacaga 2400
 ggaccacttc ctttttctct cttttatctg gttgggtttt gtcttcttta cccaagaact 2460
 gaatttgcct gcctgctttc tacctgagca ggcaggtgag tcttgggaac agctgttata 2520
 agaagaggaa aatgaatgcc cagccctga aaaccagcct ggccaagaa ggcaacactt 2580
 cagacggcgt gctggcccag gagacgccct gcttgccagc tgccagagtc tagctgtgga 2640
 tcgggctcct ggcccactgg ccgcgcagcc cggcggaatg cgatgctgcc gtcccagcag 2700
 agccacacct gagcctgacc cccgagcccc ggcccatgtg cccattcag ccccttgctg 2760
 ccttgagcct ctgagcaca aggccgggtg gccatggttt gcttattccg ggactgctgg 2820
 gggaaaacaa gtaaaagtct cttttctccc c 2851

<210> 1613

<211> 3842

<212> DNA

<213> Homo sapiens

<400> 1613

actgcctgg agcgcgcggg caaggcgggc ggagcgcact ggaactcaag ggggcgcaca 60
 gcggcgcgct cgcaccgctc ggctccgcgc ggctctagga ggtggcggcg gtggcggtgg 120
 tggcggcggt ggcggcggcg gcggcgggcg ggcgagggc tgagcgagcg tccgggctcc 180

ggggctccgg ggaaggcggg tgcagctcct gagtgcagcg cggcttcctg ccactgtccc 240
ggccccggcca cctctctgtc atggctcttg cggacagcac acgtggatta cccaacgggg 300
gcggcggcgg gggcggcagt ggctcctcgt cgtcctccgc ggagccaccg ctcttccccg 360
acatcgtgga gctgaacgtg gggagccagg tgtacgtgac ccggcgctgc acggtggtgt 420
cgggtgcccga ctgctgtctc tggcgcatgt tcacgcagca gcagccgcag gagctggccc 480
gggacagcaa aggccgcttc tttctggacc gggacggctt cctcttccgc tacatcctgg 540
attacctgcg ggacttgagc ctgctgtctc ccgactactt ccccgagcgc agccggctgc 600
agcgcgaggc cgagtacttc gagctgccag agctcgtgcg ccgcctcggg gcgccccagc 660
agccccggccc ggggcccggc ccctcgcggc gcgggggtgca caaggagggc tcgctgggtg 720
acgagctgct gccgcttggc tactcggagc ccgaacagca ggaggggcgcc tctgccgggg 780
cgccgtcgcc cacgctggag ctggctagcc gcagtcctgc cggggggcgcg gcgggcccgc 840
tgctcacgcc gtcccagtcg ctggacggca gccggcgctc gggctacatc accatcggt 900
accgcggctc ctacaccatc gggcgggacg cgcaggcgga cgccaagttc cggcgagtgg 960
cgcgcatac cgtttgcgga aagacgtcgc tggccaagga ggtgtttggg gacaccctga 1020
acgaaagccg ggaccccgac cgtcccccg agcgtacac ctgcgcgtat tacctcaagt 1080
tcaacttcct ggagcaggcc ttcgacaagc tgtccgagtc gggcttcac atggtggcgt 1140
gcagctccac gggcacctgc gcctttgcca gcagcaccga ccagagcgag gacaagatct 1200
ggaccagcta caccgagtac gtcttctgca gggagtgagc tccccagacc ccctcgccac 1260
tccagcgcgc ttttcagctg ctgctcgcca gaagcccttg attccactgg ttgacatggc 1320
agcagttact ggcaagaggg agaaaggacg ctgccgcta agagtgcaag gctgctcagg 1380
tctccaagcg ccgtaggagg tcacctggca gtgactgtag ggagctgggt catagtgcac 1440
gtcgtgggta ttaggaaagc ctgtattctt tcaatgaatg tcagtaggac ctctctttag 1500
ctgtaagact tgggtgggcgg ggtgggggtg ggaggggagga aagggtagga aggggtgggaa 1560
gggagaagca gacatagtca tttatgattt gaaagtggga aatttgtacc atctgtttga 1620
gtatatgcac atttaaaaaa tatcatatag taaatgcaaa catgccaaat attttataaa 1680
gattaataac agacctactc ttacctggca gtttacttaa cttactgttt tgagtcctaa 1740
acttagagtt gttaatgctt atatataatc taaccaaaga gttaccagat aggggttttag 1800
tttttgaact tttatcttct tggtgattat aaatcctgat tttggaatct attgcgcaaa 1860
agaagtttca ttttggttac ttagacctaa gatcacttat taaaaatcct tattttctcc 1920

aagcccagca aacgttgact tctgggcaaa cctgaaaacc tgaaaatgcc actttcatgc 1980
agtttgtttg aagttaagt gaatcctttc aaatgacgag ctgcagagaa ctcagcacca 2040
agggctgcct atctgtagat agctgtaaaa tggaatattt ttaaataag gcaataagt 2100
acttaaaagt gagctgagca ataaaatggt ccaataatag gtaaatagcaa cagaaacaga 2160
aggagacctg gttgccttat gcctttactc ttacatggaa taaattccca atgcatatcc 2220
tatgtaaacc ataagtgaag ggaaataaac ctgcgtcatgc tccatgctgt gaggtgtcct 2280
ttggatattc tgtgatgaca gagaagccta ttttgttttg ttttcagcat ctttctctga 2340
tgtacgtttt taaggatttt gtaagagctg ttttcagtgt ttaaattagt gctatttttc 2400
cttgttttta aaaatgaatc tcgtactgta tcttactatg tccatacaga tgttacaaat 2460
cgacagtttt attcttagac tcatgtgatc caagctgtat ataccatata taaacatttt 2520
acatgaatca tttagttttt taattcattt actaatgcta taaaatttcc tatattaccc 2580
cagtaatttg catcagctgg tttatatact aaagcaacat gttttgatga gtttcttaca 2640
tccttatcga ggaattgggt taggaaaaaa tacataattg taaaactgag tttgctgtat 2700
tatacttttt ttcttgagta ttagttgtat tactaatcat atgttgatta actgtctact 2760
taaagtcaag gtacctgtat ttttaatcca ctaatttttt tttagttggg aaatagattt 2820
caggctcttt attagactaa catTTTTTga gaagtaaaat tgacttcata tacaaagcct 2880
gtaatttttag gcgaaatgga agcagaaatc taggaagtgt tgcttgcttg tatgttgagt 2940
ttggtctcag actaagtaat gcatcagaat tcatctgttt gaagcctgaa ataatttagg 3000
actctgattc actgaccaa agtcagtgtt gcagagattt ctctaccccg tatggtattt 3060
tgttagattg ttcaacagga agcacatgat tgagaacatc ttgggacaga ccaaaccac 3120
tgacagatgg caaggctcgg cgattctgat ttcccttctc aaatctgctc aactccaaga 3180
gtcttgagaa actgctaaaa ttttgctct gtcactcaag tcttacaaat gttatcttgt 3240
aaaccttga ggtgaactat tccactgtct tgtacatagg catcttattc actgcaccct 3300
gtcacacca gcacccccg ccccgcatat tatttgaaag actgggaatt taatggtttag 3360
ggacagtaaa tctacttctt tttccaggga cgactgtccc ctctaaagt aaagtcaata 3420
caagaaaact gtctattttt agcctaaagt aaaggctgtg aagaaaattc attttacatt 3480
gggtagacag taaaaaaca gtaaaataac ttgacatgag cacctttaga tcccttcccc 3540
tccatgggct ttgggccaca gaatgaacct ttgaggcctg taaagtggat tgtaatttcc 3600
tataagctgt aatagtggag gtattgtggg ttcatttgag taagccctcc aaagatacca 3660

ttcaaataac ctgggagaat gtcataaatt attcagataa ttaacactgc atgaatctga 3720
 ttcagaggca tgcatTTaca tatgttgccc taattaccat ttgatgatca taaatacaag 3780
 tgaatgacat tggactTTta gtaacaaact taattTTtaa aaaggtgtag acaatgggtgg 3840
 tt 3842

<210> 1614

<211> 2999

<212> DNA

<213> Homo sapiens

<400> 1614

cacactgact gggggagttc aaaagcagag gtgcattcag cagggctggg tatgactaag 60
 gagactatca gggcaggagc agaggccaca gcatcaacag cggTacatct gggcccttgg 120
 cattcctggc acaccctgc ccagaggcag gagtcctga ccagccagct tcctccatag 180
 catgacctgt gccaaatgta accatggatt ctgctggcgc tgcctcaagt cctggaagcc 240
 aaatcacaaa gactattaca actgctctgc catggtaagg cgctgggcac taggggaggg 300
 cagaggccca gagccgtcgg ggaggggtgc tgctaccagg tcctgggcag acagggtcc 360
 ttgtgcagtg cagcattcta gctgttggga tagaggctca ctgtggggaa gacagagcca 420
 cctgggcctg cagatgctgg aaagtctgtt cacagggacc ttcagctcca gaacaggact 480
 tctcataccg aggtggctac agaaaggctg gggagggctg ggcactctca gaaggcagca 540
 gggcagagca ggaaagagca gggaccctgc atttagagcc tggtctgct gcttagcatg 600
 tggttttgag caagttcatt tacttctcca agcctcaaca gcctctgcaa aaggggtgaa 660
 taatatgacc tactccacac agtcatgagg actgaatgaa gataatcggg ggaggtgtag 720
 aaaggcctcc gtgaatgttg gcttttccac ttattaactc ctcctgtcc aaacaaaaca 780
 cccaatagcc ctccaacgt atccttgcta ggtaagcaag gcagctcgcc aggagaagcg 840
 gtttcaggac tataatgaga ggtgcacttt ccatcaccag gcgcgggtga gtcgggagga 900
 aacagcgggt agatgcctgc agaagcaggt tgggggtggtg ggggtggaggg ggggtgggctg 960
 aaggtctgac cgggcaggtg gtgctgcgcc acctgtgctg gtactgatac accttctcc 1020

acacaggagt ttgctgtgaa cttgcggaac cgggtgtctg ccatccatga agtgcccccg 1080
cccagatcct tcaccttccct caatgatgcc tgccagggac tggagcaggc tcggaagggtg 1140
gtagcgggtg ggggaagaga gcaggggagg ggtgtgccaa atgggtctgg ggggcttggc 1200
tgctttcatc ggacttgcct ggggtgaaggg aatgaggaga gggcaggcgg gagagctgat 1260
gggagccccct gcagggtgctg gcctacgcct gcgtgtacag cttctacagc caggacgcag 1320
agtacatgga tgtgggtggag cagcagacag agaacctgga gctgcacacc aatgccttgc 1380
agatcctcct ggggtgagcca cccctgccag ccaggccctc ctctgcctc ctcccctctg 1440
ttgcacagcc cggccccctcc cagacaggtc aagcggcacc cttaccttcc ctctctcctc 1500
ttcctcttca ttcttcatgg ctttctcact gcctggctgt taaagctcag gtcgaaagcc 1560
tacattgtaa ggtgccccaa ggcgcagatg ttcgtggatg tttcttggtt tctggtcttt 1620
acctgtctcc cctagggagc ttcatgagaa tgtctagagc tgcacctggt gcttggtaga 1680
cgttccatag gtgtttgttg gaggaaggaa tggatgagaa tgagaaggga gggagcctct 1740
gtgcctgccc cctctgcaga ggaaacctg ctgcggtgca gagacctggc ctctccctg 1800
cgctcctgc gggccgactg cctcagcacg ggcatggagc tgctccggcg gatccaggag 1860
aggctgcttg ccatcctgca gcattctgcc caggctactgc ccggcccaga ccccttctgc 1920
tcctgcattc tgcgggagtt gaggtcctcc tgtcccagca cagcccctgc cctggggcga 1980
gtccagaagg aaaggcagca aagcgggtga atggatgtta gacctgggcg cacatcccgg 2040
cttttgggcc aacctgcctg atgctgctgg accctatcac ttcacctcct ggggattcct 2100
acaaaataaa ggggttggtc agcccacatc aagggtatctt ggtcagggtgc ctatcagaat 2160
cacttgggga acttttccag actgtacttc ccagataggg atttgaaatc ctaagagtgg 2220
gcatcagggg attgggggtca ctggagcaag ggctctccca ggctctctcc agctetaatg 2280
cactgatgct gagtctaaac tgtgagtcct gtcctcaggt tgcttactga ctggtaagtc 2340
acatgggcag aaaagacata gattctgtaa gctctttaag cacagggtcg tgtgcctcac 2400
ctggtacccc gtatccctgg agaccatctg tgggtgaact caciaaggca gtgtttcatg 2460
aagtgtgtg ctgggagggg agcagtccta gcaggagctt ggccctccca gagcatcagt 2520
ggaaggaatg ctgggtccaa aggcccatg ccctctacct ctttctcaaa tccttctgtc 2580
tgctcaccag gatttccggg ttggtcttca gattccatca gtagaggcct gggaggcaaa 2640
aggaccaac atgcctggca gtcagcccca ggccctctca gggccagagg cagaagagga 2700
ggaggaagac gatgaggatg atgtgcccga gtggcagcag gatgagtttg atgaggagct 2760

ggacaatgac agcttctcct acgatgagtc tgagaacctg gaccaagaga ctttcttctt 2820
tggtgatgag gaagaggatg aagatgaggc ctatgactga gggggcagat gcaggaaaca 2880
cctagagcag ccccagagtc acggggctga gggggcggga gctgcccctg tcatagggag 2940
ggggattccc agcgtctgta gtgcttcctg tttgctgaat aaaggtctct ttctcacac 2999

<210> 1615

<211> 3140

<212> DNA

<213> Homo sapiens

<400> 1615

attggccaaa acaaaggggc tgcaggcccc atgcaagtcc gaaatctagc agagcggtaa 60
aatcttaaag ttctaaaatg atctcctttg actccatgtc tcacatctgg gtcacgtga 120
tgcaagaggt gggatcccat ggtcttgaac agctccaccc cagtggcttt gcagggtata 180
gcctccttcc tggctgcttt cacaggctgg cgttgagtat ctgcagcttt tccagggtga 240
cagtgaagc tgttggtgga tccactattc tggggtttgg aagatggtgg tcttcttctt 300
acagctccac taggcagtgc tgcattaggg actctgtgtg ggggctccta cccacactt 360
cccttctgca ctgccctagc acaggtactc catgagggcc ctgcccctgc agcaaacttc 420
ttcttgga tctaggtgtt tccacacatc ctctgaaatc taggcagagg ttcccaaact 480
ccaattctt gacttctgtg cactcgcagg ctcaacacct tgtggaaact gccaaaggctt 540
ggggcttgca ccctctgaag ccacagccca agctctacat tggccccttt cagccacagc 600
tggagtggct gggacacggg gcgccaagtc cctaggctgc acacagcaca gggaccctgg 660
gcctagccca tgaaactact ttttctcct aggcctccag acctgtgatg ggagggtgc 720
catgaagacc tctgacatgc cctggagaca ttttcccat tgtcttgagc attaacattt 780
ggctcttcat tatgtaaatt tctgaagcgg gcttcaactt ctcctcagaa aatgggattt 840
tcttttctaa cgcattgtca ggctgcaaat tttccaaact tttgtgact gtttccctta 900
taaaattgaa tgactttaac aatgcccaag tcacctcttg aatgctttgc tgcttagaaa 960
tttcttccac cagacactct aaatcatctc tctccatttc agagtccac aaatctctag 1020

gacaggggca aaatgctgcc agtctctttg ctaaaacata agagtcacct ttgctccagt 1080
tcccaacaag ttcctcatct ccatctgaga ccacctcagc ctggatttca ttgtccatat 1140
cattatcagc attttgggtca aagccattca acaagtctct aggaggttcc aaactttccc 1200
acattttcct atcttcttcc aagccctcca aactgttcca atctctgtat gttaccaggt 1260
tccaaagtca cttccacatt ttcaggtatc ttttcagcaa tgccccact ctactggtac 1320
caatttaagt tattagttca ttttcacact gctgataaag acatagctga gactgggcaa 1380
tttcaaaaag aaagagggtt agtggactta cagtcccaca tggctgggga ggcctcacia 1440
tcatggctaa aggcaaggag gaacaagtca catcttacat gaatggcagc aggcaagag 1500
agagcttgtg cagggaact ccccttataa tatcatcaga tctcatgaga cttttttcac 1560
tatcatgaga acagcatgga aagacctgcc ccataattc tattacctcc caccaggtct 1620
tttccacagc acatgggaat tcaagatgag atttgggtta ggacacagcc aaaccatatt 1680
acaggtaatt acatagtcag aaacacaatt ggacaaccaa catatgacag ctttttcaac 1740
attactagta ttcaaaaaa tactaaataa agtagcagta agatgtttat tttcaciaag 1800
catattatca gatagttaa gagtaatagg gttattgaag gtatttctga gatcaagtct 1860
ttttgttgag tttaatgttg atgtgcatgt aaattggtac agcatttgtg gtaggcaatt 1920
tgccccctt atcaacatta aaatgcttgt gatcactttg aggtagtagg gagctgggga 1980
agagtgggag gggctagggg agtggacaca atgggaggta cttaaaggact ggaatgtaaa 2040
gggggggatg tgtggggcca ggagggtatt ggaagaacca ggattgattg gaggaggggg 2100
agaggagata aaaggcactt agagggactg gtggaaaaa aacaagagag attggaacaa 2160
actgaagaaa cttagaggga caggaagaga aggggtggga ctggcaggga ctacacatgt 2220
aaaatggaaa caactggcat tcagcaaatt gacctacagc cactggcaaa tgggacctgt 2280
tcacattgac cagggtcctt caggagaatg agatttgta gcaaacagga aacagtgatt 2340
ttcagagtgg tactaactgt gctttgcaga gttcttttac ttcctgttat cttgactcta 2400
ttattacctt gtattttgct tctacaaagc agcctgagct ctttgaagac tccttagtct 2460
aaagcctctg atggccaatg gtctgcatct tccccatgtg ctcctgaggt acaaatgga 2520
catttcagct gcttttaata gaaactcact gtgtcactca taaaactcag gaagctgtcc 2580
caaatcctgg gaggacatga aaagaggctc actctgtagt caagcacagg tatgcctaag 2640
gtgtgcaggt cccaagactc tcccacttct ctcttagttt ggagtgggca ttcttttaag 2700
aagtggagga ccctgtggtc actggcttcc ttagtggtga atcatagggc aatcagagag 2760

caggaatctg caaaggggcg ctgtcatgtg ctgaattgta tctcctcaac atttatagat 2820
 tgaagcccta gcctccagta tctcaggatg tgacagtatt tggagggtggg gcttttaaag 2880
 aggtgggttaa gttaaaatga agccattaga gtggtcctta atccaatatg actggtctcc 2940
 ttataagaag aaacttgtac acagaagaga tacacaaggg acatggaggc acagagaaaa 3000
 gcccatgtga agaggcagca aaagagtggc catgtgcaat ccaagaagag aggcctcaga 3060
 ggaagccagc cctgccaaca ctttgatctt gaactttcgg gttccagact gtgagaaaat 3120
 aaatttttat tgtttaagcc 3140

<210> 1616

<211> 3268

<212> DNA

<213> Homo sapiens

<400> 1616

ggaccatgag gttcaccacc ctgtcatacc aggaaatgag cttgacaaag tcattgttga 60
 gggcaatgcc agccccagca ttgaagatgg aagaatgggt gtcactgtca aagtcagagg 120
 agacgacctt gtgctcagta cagcccagga tggccttgag gatctccctc aatgcctgct 180
 tcaccatcct cttgatgtca ctgtatttgg caggtttctc cagatggcag gtcagggtcca 240
 tgaccaacat gttggtggtg gggacatgga aggccacgcc agtgagcttc ccattcagct 300
 cgggggatgac tttgcccaca ggcttggcag gaatgatgtt ctagagagcc ctgcagccat 360
 cacactacaa tttcccagag gtaccatcag tagtcttcta ggtggcactg aaggcatgaa 420
 ctgtgggtcat gagtccttcc atggtgccaa agttgtcatg gatgaccttg gccagggggg 480
 ttaagcaact ggtggtgcag gaggcattgc tgataatctt gaggctgttt ccatacttct 540
 catgattcac acccatcaca aacatggggg catcagaagg ggcagagatg gtgactcttt 600
 tggctcccc atctaagtaa gtcccagcct tctccatggg agtgaagaca ctgggtgggct 660
 ctataacata atcagcacca gcatcacctc ctttgatttt ggtgggatct cattcctgga 720
 agatggtgat gggatttcca ctggtgacaa gcttcgcgtt ttcagcctga tggtgctgtg 780
 gaacttgcca tgggtggaat catactcgaa catgtagacc atttagctga ggtcaatgaa 840

ggggtcattg atggcaacaa tatccattgt gctagagtta aaagcagccc tggttaaccag 900
gcatccaata tgtccaaatc tgtttactcc agccttcgct tttcccttgg tgcctcaggg 960
acgcaattgg tgctgcatga gaagatgcag ctgtcagtcg aacaggagga gcagagagcc 1020
tgccattgct tcagactcaa taactggggc aggtctcagt gttatagctt gggatgggaa 1080
atacagcttc tgcttttggg gaaaatactt cacccatgag gaccaggacc agctaataag 1140
gactggggaga aataaaggga ctatgtgtgg gagtggatct tttttttttt ttttgagaga 1200
gggtcttgct ttgtcaccta tgctgaagtg ccattgtgca aacacttctc tctacagcct 1260
caatctcctg ggctcaagca atcctcctgc ctcagactcc caagtagctg ggactatagt 1320
cgcatgtcac catgcctggc taatttttaa tttttttag agagggcctc gctgtgttgc 1380
ccaggctggg cttgaactcc tgggctcaag cgattctctc acctctacct cccacagtgc 1440
tgggttacag gtgagagcca ccccatctgg ccagaagtgg atcttgaggg tgctagatga 1500
tgcaaatata aggttgaaag gagagagttt tggccaggcg tggtaggcta tgcttataat 1560
cccagcacct cgagaggccg aggcagtagg atcccttgag ctcaggagt caagaccagc 1620
ctgggcaaca cagcaacacc ctgtctctac aaaaaatttt aaaaaccaa attagttggg 1680
cgttgtggct tgtgcctaca gtaccagcta ctcaggaggc tgaggtagga ggatcacttg 1740
aaccggggag tcagaagttg cagtgagctg aaatctcacc actgcacccc agcctgggtg 1800
acagagttag cccctgtctc aaataaaatg agtaggccag gtgtgggtggc tcacgcctgt 1860
aatcccagta ttttgggagg ctgaggctgg tggatcactg gaggccagga gtttaagacc 1920
agcctgggca acacagttag actccatctc tgctaaaatt agccgggcat ggtggcacat 1980
gcctgtaacc ccagctactc tggaggctga agccagagaa tcacttgaac caggaggcag 2040
aggtttcagt gggctgagat cataccactg cactccagcc tgggcgacag agcaagactc 2100
tgtctcaaat gaaaaaatac atacataaat taattaatta aaaaagaaag gagatagttt 2160
attgacaggg gagaactctc ctgcaacaca ggatgtagct ggagccagtc ctaacatgct 2220
tctggggtag ctccatgaaa tggtttacia taataaggtg gggatgctgg gatggccatt 2280
gcagagtttt gggatttttt gtgcatagta aaatacacat aaaatttgcc tcttcacttt 2340
atatattgtg gtaggatata cgtaacataa aatttaccat tttaaccact tttaagtgtc 2400
caatttagtg gcatthaagta cgttcacaat gttgtgcagc cattatcact gtccatttct 2460
agaacttttt tttttttaag atggattttc gctattgttg cccaggctgg agggtaatgg 2520
cacaatctca gctcactgca acctcacct cccgggttca agcaattctc ctgcctcagc 2580

ctcctgagta gctgggacta caggcacatg ccaccatgcc cagctaattt ttgtatgctt 2640
agtagaggca gggtttcacc atgccagcca ggctggtttc aagctcctga cctcaggatga 2700
tccgcctgcc ttggcctccc aaagtgtctg gattagaggc aagagtcacc acacctggcc 2760
agctacacac ttttaaaca caagatctca tgagcactca ctcattatca caaaaacagg 2820
aagggggaaa tctgttccca tggccaatc acctcccacc aaacatgctt cctcacttcc 2880
ttaaggactt ttctggaagt gcttctcagt gaggccttcc tctactgcaa aaagcttccc 2940
ctgccacaaa gagcttcttt ttttttttg agacagagtc tcgttctgtc acccaggctg 3000
gagtgcagtg gcgtgatctc agcacttttg gaggccgagg caggcggatc atgatgtcaa 3060
gagatcgaga caatcctggc caacaagggtg aaacccctc tctattaaaa atataaaaat 3120
tagctgggcg tgggtggcggg cgcctgtagt cccagctact tgggaggctg aggcaggaga 3180
atcgcttgaa cccgggaggt ggagattgca gtgagccgag atcatgccat tgcactccag 3240
cctgggtgac agagttagac gccgtctc 3268

<210> 1617

<211> 3051

<212> DNA

<213> Homo sapiens

<400> 1617

cgctgatgcg catcctggtc atcgggctgt cccgggagct cccgctcggg cctgcggacg 60
ccatggagct tgctgaccac ctggtgaagc gggcggctgc cgtgcaggcg gatgatgtgg 120
aggtgctgaa ggtggggagg acccagctga tcgacgccgt tctgaatctg tgcacctacc 180
atcacctga aaacatccag ctcccaccgg ggtaccagcc tccgaacctc gccatctcta 240
ccctctactg gaaggcctgg cccctcctgc tggctgtcgc cgcattcaac ccagagaaca 300
tcggcctggc tgcgtgggag gagtaccga ccctgaagat gctcatggag atggtgatga 360
ccaacaacta ctctacceca ccgtgcaccc tgacggatga ggagaccgg acggagatgc 420
tgaaccgtga gctgcagacc gccagcggg agaagcagga gatcctggcc ttcgaggggc 480
acctggcggc cgcgtccacc aagcagacca tctactgagag cagcagcctc ctctgtcgc 540

agctcaccag cctggacccc caggggcccc cccggaggcc tccccctcac atcctggatc 600
aagtgaagaaag cctcaaccag tccctccgcc tcgggcacct cttgtgccgc agccgaaacc 660
ctgactttct cctccacatc atccagcggc aggcctcctc gcagtccatg ccctggctgg 720
cggacctggg acagtccagc gagggctccc tggacgtgct gcccgtgcag tgtctgtgcg 780
agttcctgct gcacgatgct gtggacgatg ctgcttccgg ggaggaggac gacgagggcg 840
agagcaagga gcagaaggcc aagaagcggc agaggcaaca gaagcagcgg cagctgctgg 900
gccgcctgca ggacctgcta ctgggcccga aggctgatga gcagaccacg tgtgaggtgc 960
tggactactt cttgcggcgc ctccggctcct cccagggtggc ctcccgcgtg ctggccatga 1020
agggtttgtc gctggtgctt tcggagggca gcctgcggga cggggaggag aaggagcccc 1080
ccatggagga ggatgtgggg gacacagatg tgctgcaggg ctatcagtgg ctgctgcggg 1140
acctgcctcg cctgcctctg ttcgacagcg tcaggagcac cacagccctg gccctgcagc 1200
aggcaatcca catggagact gatccccata ccatcagcgc ctacctgatc tacttgtccc 1260
agcacacgcc tgtggaggag caggcccagc acagcgacct ggccctggac gtggcccggc 1320
tggtcgtgga gcgctccacc atcatgtccc acctcttctc gaagctctcc ccgagtgccg 1380
cgtcggacgc cgtgctgagc gctctgttgt ccatcttctc acgctacgtg aggcgcatgc 1440
ggcagagcaa ggagggcgag gaggtctaca gctggtcgga gtctcaggac caggtcttcc 1500
tacgctggag cagcggggag acagccacca tgcacatcct cgtggtccat gccatggtga 1560
tcctgctgac gctgggcccg cctcgagggtg agccgccaca ggccccggga ggggcagctt 1620
cgtgccaggt gggccacagc cctgaccaca cccagcggct tccgcatacct tgccttgctt 1680
ctgggcggga agccccccag cccttcaacc ctgtgtcctg gcttctctcc taaagaggag 1740
gctgcagtcc gtcccgcgtg tctctgagca cttggtggac gtgtgggaga tccccacgtg 1800
gtgggacctc ccagcctgta gagccctgag ctggagggcc tggtagacc tggggtcaga 1860
gtcctcactg cccagccta accgtgtagg cctgcgggtg ctgggaggcg gcaaactcgg 1920
gatttcaccg tgtggaggtg cgacatgagg ctgccaggca agtgggtcct ctccccgggg 1980
cccaggcgag tgacctgag gacgctctgg ccagcgcagt gtctggaacc cagcgcctac 2040
ccagccgtgc cctctgcggc cgcagccttc ccctttactc ctggctgaca ccatgaactg 2100
ctcccagtt caccctgtt gtgtgtcag tgggggaagg gggcggaacc ctcatgctgg 2160
ggttcgggtg gacgtgggtg ggtggtgacc cctgttggga ggcagacaca gtcacaggcg 2220
tcgcccttgg gaagggcagc cggagaagcc ggccctgtgt gggcctgggc ctgtgggggtt 2280

tcccagtggc tttgcggagc cagagagctg gatgggacct ggtccagcca agcaaagccc 2340
 cgagggcagg ggctggatgg ggacacgcac atgtcccctt ggccacgaca aaatggcagt 2400
 gatgctgctt gccttcctgc agcatctgtg aggatcaaata gcgtgcacct acgcaaagca 2460
 tccgcacata gcaagtgtc acctagcaca ggagccccgt gtcctccca agtctcagtt 2520
 tccttctcgg gagaggaggt gcctctagcc ttggcaccag cgggtgcttg ggctgggccc 2580
 cgggtgggtct gaaggctgct caccggttgt ccttctgaa gccgacgaca gcgagttcca 2640
 ggcgctgctg gacatctggt ttccggagga gaagccactg cccaccgcct tcctggtgga 2700
 cacatcggag gaggcgctgc tgcttctga ctggctgaag ctgcgcatga tccgttctga 2760
 ggtgctccgc ctggtggacg ccggtacggt ccaggctggg cttgggcagg ggctgctgac 2820
 tcaggggtcc cggggcccctt gcctgtctct tgtgggcctg ggcagcctcc ggctgtggca 2880
 gaggagaaga ctggccgggt agcctcaggg gatcctgcag accatatgtc ctgcccacag 2940
 caggctgtgc tggaccctgg gaggagacct agggcagcct gtgctggccc cgtccgagag 3000
 ggtcttactg tcaggctcag gggctctagag tgagaaacag gtcctcgatg g 3051

<210> 1618

<211> 2923

<212> DNA

<213> Homo sapiens

<400> 1618

gtttgggccg gccaggtccc gggatccggg ccgcccgtg cgatgccaag tccccggagg 60
 agcatggagg gacggccgct gggcgtctcc gcttcgagca gcagcagcag ccccggcagc 120
 ccagcccatg gcggcggtgg cggcggcagc aggtttgagt tccagtcctt gtcagcagc 180
 cgcgccacgg ccgtggaccc cacctgcgcc cggctccgtg catcgagag cccagttcac 240
 cgccgcggct cttccccct ggccgcggcg ggcccctgc agtcgcccgc gcctccgctg 300
 cccgaggagg accgcatgga cttgaaccg tccttcttgg gcatcgccct gcgctccctg 360
 ctggccatcg acctgtggct gtccaagaag ctgggggtgt gcgcgggaga gagctcgctg 420
 tggggcagcg tgcgaccct tatgaagctg ctggagatct cgggacacgg catcccctgg 480

ctgctgggca ccctctactg cctgtgcagg agcgacagct gggccgggcg cgaggtgctg 540
atgaacctgc tcttcgccct gctgttggac ctgctgctgg tggccttgat caaagggctg 600
gtccgcaggc gccgcccggc ccacaaccag atggacatgt ttgtcactct ctcggtggac 660
aagtactcct tcccctcggg ccatgccaca agggccgccc tgatgtcgag gttcatcctg 720
aaccacctgg tgctggccat tccactgagg gtgctggtgg ttctgtgggc cttcgtcttg 780
ggcctatcca gggtcatgct ggggcggcac aatgtcaccg acgtagcttt tggctttttt 840
ctgggctaca tgcagtacag catcgtggac tattgttggc tctcacccca taatgctccg 900
gtcctctttt tactgtggag tcaacgatga caccatctca ttgattatgg caccaggaag 960
tctgaagggt tccacattcg atgatgtcaa cctaaaccag cagccatccc gcttgtccct 1020
cttaggcatt tcaggcttcc tttgggattt caggtgtccc atgatcttga tgtgtgtgcta 1080
ggctggagca cacactggcc attactgaac acagccatat tagggaaagc aaaaaaaccc 1140
aaaaaatcct ctattgtata tttattcaac aactgtttat gtttccagga caactgcaaa 1200
gaaaacaagc tgaggtgggt atactgttgc tgttaaaagt tggatcagt aagatttgtg 1260
ttttgtgata atccctaaat caacatacca cttgtaaact gaacttcgag aaagaaacat 1320
gatgttcatt ctgtaaatat acatgcagac aggtcatgta ctaatcctag tccttttctt 1380
gaggtagatt ttaaacagta tttttaaaagt ccaagacata ggtttttcta gtttattccc 1440
tgaagatctg ttgccacagt tgggagattt cttcttaatc ctgattttct tggtaagctt 1500
ttttacttta ttatctctat aatttattat ctctatccat atttgtggat cgggtagtgg 1560
gaaaagagat tataatactt gtctttctct cctctccctc catccctcaa aagatcttta 1620
tgcatttccc actactccct tactgtcttt tagcattcag agaaaaagcc aacttgctta 1680
aagaggaatc acttaaaagg taggcatatc taagatgctc atagaagagg aagaatggga 1740
catggcccca tgcttatttt tgtttacaac gtaacatggc atgagagagg gcagagaaac 1800
taagttgctg gggaaagtta gaggaactga aagtttggga ataggctgac cacatattat 1860
gccagtgacc agtatgacag gagatggggc cctgctgcca gtcactcca ctgaataaag 1920
aataatgctc ctctttcagg gtaataaagt ggggaaaagg aacgtcttct caatgcaaga 1980
acataagctt tctcgtatat acctgtatgc tacagttttt cacatggaat tccgttttct 2040
gaggtacagc acattttagg taacagtatt taacttgaag ttcatcatgg gagtctgctg 2100
ctataccagg cacaagataa aactccaaaa tttctgttta cattgacctt tacatttaaa 2160
gctgttcac ccatggtgcct ccccaaatca taagaccaa gaccaccaa cgcagggtgg 2220

actctgctca ttattctttg acccagaaag actggagaag gtatgtgctt taagtgtgc 2280
 tctacctgaa aagaaatcct ttaaattacc tatggaagtg atgtcctcag ataatcttaa 2340
 tgactatttt ggcatattata gatagaaatg attatggact ttgatctgcc atacggaggt 2400
 tcggaacctg gagaatggct gtgataagta ggttttgatt gagtgaaagc atgagcttgt 2460
 tcagagtgag gggcatagtg aaaaaggaac agccatgcct caaaatcaaa tcatttgcac 2520
 tcccacagca tcctgaatac cgactacctc ttcacttgct aaagcagcta aactgtgaag 2580
 ctctaagtgg tttgggtttg ttgtttaacc ttagcgagat cctttaactg cagcaatatt 2640
 caagccagat atttggaagc aaatgatatt tcctcttgca gtgtccacaa atctgaatat 2700
 taggggcatg aaattaggct taccatctga tttgtaatta caattttgga attctctgtt 2760
 ttagttgctg aggcctgagt tttctggctc ttaaagcata gatcatttca cctgatgttt 2820
 ttgaagcatc ctaagtacag tagagtagaa aactgatttc tttgttaatt gtacactgaa 2880
 taatgccttt taaaaatcaa aataaaatta acaaataatg gtg 2923

<210> 1619

<211> 3389

<212> DNA

<213> Homo sapiens

<400> 1619

aacaagatgc aaggacaatc tgaggactga gagccatttc aacgtgagcc cccagtctga 60
 gaacaagaaa gaagaacttc tgtctcgaga ctgaagccaa ggataccagc agagccaaca 120
 tttgcttcaa gttcctgggc ctgctgacag cgtgcaggat gctgttgga cccggcagag 180
 gctgctgtgc cctggccatc ctgctggcaa ttgtggacat ccagtctggt gagacaggga 240
 actacacagt gacgggattg aaacaaagac aacaccttga gttcagccat aatgaaggca 300
 ctctcagttc aggcttccca caagaaaagg tctgggtaat gctggtcacc agccttgtgg 360
 cccttcaagg tatgtccaaa agagccgtaa gcacccaag caatgagggt gctattatat 420
 ttctgccacc ttggttattc tccaggagga gaagggttga aaggatgtcc agggggagag 480
 aaaaatgtta ctcaagccct ggctatccac aggaaagtgc aaaccagttt cactgatcca 540

aaggcactaa ggaggaagac agataaatca gacttttcaa tgggtaggag gtaagactca 600
ttaggaatga aggcctgtga gagaggcaag ttagtacaac tacctctact cactgcatga 660
acagagggct acaagttgaa gcaacagatt ttcagctatt agaggaagaa aaggcaagag 720
acagacttgg tttggagatg ggttttgaac aatgcggctc ctcagcaaag gctgatggcc 780
agattgagta tattaaacac atgtagctga gtcctctgaa aaccatttac caatatagat 840
tagcgttttc cctattagat aacaaaaagt gaaacttcca ataatttgtc ataacgtttt 900
tgcataacaa gcaactgatt cagggttttg cctggccttg gcattcttaa ctccatttta 960
tttaggcatt cctcaaatca ataactacca ctgttttgaa tggcatcaga atgtaagctc 1020
tatatatatg taaggacttt gtcttcttta ccccaacgaa aagtcccaca catatggcag 1080
gctcttaata aatttgtaa aaaacctgta tgatgaatca gatgctttac acatgatgat 1140
tctaacctta tacaacctt gcaagcaaac atcccctggg tactcatcag gaaacagaca 1200
caaggaagtt aaatagggcc tgggtgcggtg gctcacgcct gtaatcccag cactttggga 1260
ggccaaggca ggcagatcct ttgagcctag gagtttgagg ccagtctggg caacatggca 1320
aaacccaac tatacaaaaa aatacaaaaa ttaggcattg tggcacacaa ctgtagtccc 1380
aagctaaggc atgaggatca cctgagccca ggctgggtga ggttgcagtg agccatgatc 1440
atgccactgt actccagcct gggtgacagg gtgagacact ttctcaaagg aaaaaaaaaa 1500
aaaaaagagt taattgttgc ccgtcacagc aattaataca gatccttctc actctaaaac 1560
cttacactca gtaatgatct actatatgca aagcacctct tacatcctc accaccccat 1620
tcattctgag attgactcct cccctttcca gaaacaggac cacctaaaca ttccctattc 1680
cagtccctta ttgcaagtc atcaaaagaa aacagagatt tcaaaaagaa aacagagacc 1740
ttatctgtaa tccttggtta ggatcttcca aatttaagcc tatgccagtt ttcaggagga 1800
aacatgaata tgaaacagtc tgacctttag acataatatt ttgttgactt taaattccct 1860
tggttaggcc actgtaacca gtaaaataaa ttttatatta gaataaaaat tataaagggg 1920
aaattgagtc tagccataca acctactact agttactatc ttfgattccc aagtcacct 1980
agagcaaaaa aaaaaaaaaa aaaaaatcat ctctggcctt ttttccctt tccactcagg 2040
tgaagagaat gagcttttga atccaatatt ttgttttctc ctatattcaa ttcaagtagc 2100
tttaaagtta accaaaggaa aaaaccaaag ctcaatattt gattaaacga gaaaatatac 2160
actacttaga agctttcttt tctttatcct tcttcccaa ctcaaggctt agtagaatta 2220
ttgaaagagg tagtattcag tagaatagta cacatgcttt ttcagggtcca gaaacaccac 2280

ataggtcaag ttatcatgct tacatgtggg gaaaaggagg agggagtttc ctggacctct 2340
 gtgcctctct cagctcatga actagtttca gtgaatatcc ttgtcttacc actgtgccaa 2400
 caattcagag ctatactggg aaaacctacc ttcaactttt tgagtggcat ctattgcttc 2460
 tttgattgtt ccttccagca aggagcgatc aaaggctagc ccccttccca ctcccaccag 2520
 aatcagattt gctcaagatt acaaccctaa tttagtaata agatgcaata cataaaatag 2580
 ttcccacttt ccttttccaa tccctttaca gtcattgagg cctatcacgc acgcatctca 2640
 ggacagggtga gacttcatta tatcaggtat tttgttgcta ttctaagtta taaggcagta 2700
 atacaaactt tctttccaca gctttgtaag ccttgtgccaa aaagaaactt ttaaaacagc 2760
 tacagcaaga tgagtctgac tatggccttag tatctttctc attacaatag gcacagagaa 2820
 gaatgcaaca gggcacaggg gaagagatgc taaatatacc aagaatctgt ggaaatataa 2880
 gctggggcaa atcagtgtaa tccttgactt tgctcctcac catcagggca aacttgcctt 2940
 cttccctcct aagctccagt aaataaacag aacagctttc accaaagtgg gtagtatagt 3000
 cctcaaatat cggataaata tatgcgtttt tgtaccccag aaaaactttt cctccctctt 3060
 catcaacata gtaaaataag tcaaacaaaa tgagaacacc aaattttggg ggaataaatt 3120
 tttatttaac actgcaaagg aaagagagag aaaacaagca aagataggta ggacagaaag 3180
 gaagacagcc agatccagtg attgacttgg catgaaaatg agaaaatgca gacagacctc 3240
 aacattcaac aacatccata cagcactgct ggaggaagag gaagatttgt gcagaccaag 3300
 agcaccacag actacaactg cccagcttca tctaaatact tgttaacctc tttggtcatt 3360
 tctcttttta aataaatgcc catagcagt 3389

<210> 1620

<211> 3058

<212> DNA

<213> Homo sapiens

<400> 1620

ctctgtgaac tcattgtaat ggcgggctct cttgacctc tccctgacct ggattccagg 60
 cctctcggaa aagggggcca ggagggggca gggagaggct gcaatcgctg cagatttctca 120

ctcaggcagc aggacctgcg tgacctgccg tccgtggaag tcaaaagcat ccccttgcc 180
gaagcaggca ctgaaatgtt ggcctccagc tctgggaggt gggcaggaca ggcaaggtgt 240
caggagggga agatccatat ggccagggtt tccgtgagaa ggagctggag acccaggaaa 300
cagtggcttg tgtctagctt agggagcttt tcttcaagtt tctgaagaat ggggaggaca 360
gctctggaac aacagtccac tctcctttta ttccagcaag gatggaacat tactgtggac 420
ctggtcattg gccctaaagg gatccgccag ctgactagtc aggacgcaa gcccacctgc 480
ctggccgagt tcaagcagat caggtccatc aggtgcctcc cgctggagga gggccaggca 540
gtacttcagc tgggcattga aggtgcccc caggccttgt ccatcaaaac ctcatcccta 600
gcagaggctg agaacatggc tgacctcata gacggctact gccggctgca gggtagcac 660
caaggctctc tcatcatcca tccataggaa gatgggtgaga agcgggaacag cctgccccag 720
atccccatgc taaacctgga ggcccggcgg tcccacctct cagagagctg cagcatagag 780
tcagacatct acgcagagat tcccgacgaa accctgcgaa ggcccggagg tccacagtat 840
ggcattgccc gtgaagatgt ggtcctgaat cgtattcttg gggaaggctt ttttggggag 900
gtctatgaag gtgtctacac aaatcacaaa ggggagaaaa tcaatgtagc tgtcaagacc 960
tgcaagaaag actgcactct ggacaacaag gagaagttca tgagcgaggc agtgatcatg 1020
aagaacctcg accaccgca catcgtgaag ctgatcggca tcattgaaga ggagcccacc 1080
tggatcatca tggaattgta tccctatggg gagctgggcc actacctgga gcggaacaag 1140
aactccctga aggtgctcac cctcgtgctg tactcactgc agatatgcaa agccatggcc 1200
tacctggaga gcatcaactg cgtgcacagg gacattgctg tccggaacat cctggtggcc 1260
tcccctgagt gtgtgaagct gggggacttt ggtctttccc ggtacattga ggacgaggac 1320
tattacaaag cctctgtgac tcgtctcccc atcaaatgga tgtccccaga gtccattaac 1380
ttccgacgct tcacgacagc cagtgcgctc tggatgttcg ccgtgtgcat gtgggagatc 1440
ctgagctttg ggaagcagcc cttcttctgg ctggagaaca aggatgtcat cggggtgctg 1500
gagaaaggag accggctgcc caagcctgat ctctgtccac cggtccttta taccctcatg 1560
acccgctgct gggactacga cccagtgac cggccccgct tcaccgagct ggtgtgcagc 1620
ctcagtgcg tttatcagat ggagaaggac attgccatgg agcaagagag gaatgctcgc 1680
taccgaacct ccaaatctt ggagcccaca gccttccagg aacccccacc caagcccagc 1740
cgacctagt acagaccccc tccgcaaacc aacctcctgg ctccaaagct gcagtcccag 1800
gaggaggact tcatccaacc cagcagccga gaagaggccc agcagctgtg ggaggctgaa 1860

aagggtcaaaa tgcggcaaat cctggacaaa cagcagaagc agatggtgga ggactaccag 1920
tggctcaggc aggaggagaa gtccctggac cccatggttt atatgaatga tacgtcccca 1980
ttgacgccag agaaggaggt cggctaccgt gagtggtccc gcccttcttc ggggggtttc 2040
ctcttggcac cttgtgcaga gccaccatcc ttgcccaccg cccagggcag ggagcagcgg 2100
agtctgtctg cattccctgc agcatcgcc atgatttaat tcagagcatg tggggcaggc 2160
cagcttcccc tccgtccct ccaccccatt cctctccctg cctagcacc tgcccttctc 2220
tctctcagtg gccacatcct taggcccctc ctcagatcat cccctcctg cattagtttg 2280
gaggagctgg aaattctctc ttctcattt cctgctctgt tggaagctcc cgtgggaaaa 2340
gttaagcagt gccacctgcc cgtcccagtt cagattcatc ttctgtaggc ctgagggaca 2400
gaggagagaa agtgagaggg gcagctgagc cctcaggccc tctccagaag accctgttgc 2460
aggcagggag ggaagagcca gcagtaagcc cggggcctgg aggggtggca ttgaggagga 2520
ggatgatgac agccatcaca gagaactgga cacaagtcag gcatgggcct gggaccattt 2580
attatcttct gaggcacagg gtgattaggt aacttgtcca aattcacaca gctaataact 2640
ggcaaagtgc agatttgaac ccaagccttc tgactttagg gtcccttctg agctcacct 2700
cttatcttac aaatgaaaat taaggctcgg aatgtgagct gcctagagtg gtcacagagc 2760
tctttggcgg cagaggtgag aatagaaggc caggtgtggt ggctcacacc tgtaatccca 2820
gcactttggg aggctgaggt gggagggtca cttgatccca ggagtttgag actggcttgg 2880
gcaacatagc aagaccccat ctctacaaaa gattaagaaa attaggcctg gtgatgcatg 2940
cctgcaagcc cagcggtca ggaggccgag gcaggaggat tgcctgagcc tagaaggtga 3000
ggctacagtg agctgtgatc acgccactgt gctccagcct cggtgcaagc cctgcctc 3058

<210> 1621

<211> 3058

<212> DNA

<213> Homo sapiens

<400> 1621

acgctagctg ggtgacttcc cccaaccgca gagacagcgg cgaccggggg cctcagacct 60

gccccgcacat ctcgccggcg ccaggcagtg ggaagtcagg ttcttccgcc acctcccagc 120
caggactctg ccacctccc tcaggatgcc tgagggcccc gagctgcacc tggccagcca 180
gtttgtgaat gaggcctgca gggcgctggt gttcggcggc tgcgtggaga agtcctctgt 240
cagccgcaac cctgaggtgc cttttgagag cagtgcctac cgcactctag cttcagcccc 300
cggcaaggag ctgcgctga tactgagccc tctgcctggg gccagcccc aacaggagcc 360
actggccccg cgaggagctg ccacgccatg cccacctgcg cttttacacg gccccgcctg 420
gcccccggt cgccctatgt ttcgtggaca tccgccggtt cggccgctgg gaccttgggg 480
gaaagtggca gccgggcccgc gggccctgtg tcttgaggga gtaccagcag ttcagggaga 540
atgtgctacg aaacctagcg gataaggcct ttgaccggcc catctgcgag gccctcctgg 600
accagagggt cttcaatggc attggcaact atctgcgggc agagatcctg taccggctga 660
agatcccccc ctttgagaag gcccgctcgg tcctggaggc cctgcagcag cacaggccga 720
gccccggagct gacctgagc cagaagataa ggaccaagct gcagaatcca gacctgctgg 780
agctatgtca ctcagtcccc aaggaagtgg tccagttggg tgaggccaaa gatggcagca 840
acctctgctt cagcaaatga ttgtgtaacc ctggggcact tgtccctctc tggacctgat 900
tcaccgattt ggaagtttgt agccctagct gatactcaat ggactaggcc tcctcacttg 960
tcaatagtgt ttccaggctg ggcgcagtggt ctcatgcctg taatcccagc acttcgggag 1020
gccgagtggt gtggctcacc tgaggtcagg agttcgagac catcctggcc agcatggtga 1080
aaccctgtct ctactaaaaa tgcaaaaaat tagccagggtg tgggtggtggg cacctgtagt 1140
ctcagctact cgggaggatg aggcaggaaa atcgcttaaa cccaggaggt ggaggttgca 1200
gttgagctga gatcgtgcca ttgcactcca gcctgggcaa caagagcaaa actccatctc 1260
aaaaaaaaaa aagacaaaaa aacagtgttt cctccaagct gccatgaga caggcaggac 1320
aaggattctt ttatatattt atacacacac acacacacac acacacacgc acgtttatat 1380
atatTTTTtg tagagatggg atcttgccat gttgcctgga ctagcctcaa actgggctca 1440
agtgatcctc ccacatctgc ctctaagtgg ctgggactgc aggctcacac caccacaccg 1500
ggctaattgt taaaaatttt tttttagag acggggctct cctatgttgc ccaggctggt 1560
attgaactcc tggcccctag ggattctccc atctaagctt cccaaagtgt cgggattgca 1620
ggtgtggcca ctgcacagg ccaggacaag gattcttaat cccactccag gatgggaaac 1680
ccatggccga gtgggaagaa accagctgag gtcacatcac cagaggaggg agagtgtggc 1740
ccctgactca gtccatcagc ttgtgtagct gaggtctggg ccagggtctaa ccaggctccc 1800

cactcctccc aacctgagcc tgccctctga tctctgcctg ttcctctgtc ccacaggggg 1860
caggggctac gggtcagaga gcggggagga ggactttgct gcctttcgag cctggctgcg 1920
ctgctatggc atgccaggca tgagctccct gcaggaccgg catggccgta ccatctggtt 1980
ccaggttggg ccctactgtt cacacaggca gagaccccag gaggtgatg ggtggaaacg 2040
tggggtcaca ataactgggg tggatgatgt cagggtctgt ctagaccctc caaggaccac 2100
actgttcctg agggtcacac ccctcccctc ccatgcgtcc cagggttgca gctagtggaa 2160
gtagcccaag gcaggtagcc caagtgaag tagccaaggg cagagcagct ttgctgatgt 2220
ggactctaac atgggggatg tcctagaggc ttcctaaggg agaagctaca ctgatctgga 2280
tgggtgtgtg tgagtctgc ctctccaagg aataccgcc ctgtgccaac ccaggctgat 2340
tcctgaatta tccccatccc attttagggg gatcctggac cgttggcacc caaaggtaa 2400
ctactcctaa tgtaataggc taagagagca gaaaggactt cacgcctgca agggctacag 2460
cacccttctc caccctatcc ccctgcaacc ctgggagtca cccctgggca ggataggacc 2520
ctccaactcc aacaccagtg tcctgcaggg cgcaagtccc gcaaaaagaa atccaaggcc 2580
acacagctga gtcctgagga cagagtggag gacgctttgc ctccaagcaa ggccccttcc 2640
aggacacgaa gggcaaagag agaccttctt aagaggactg caaccagcg gcctgagggg 2700
accagcctcc agcaggaccc agaagctccc acagtgccca agaaggggag gaggaagggg 2760
cgacaggcag cctctggcca ctgcagaccc cggaaggctc aggctgacat cccatccttg 2820
gaaccagagg ggacctcagc ctcttagcag gaggtctctc ttgcttgac tcacccttcc 2880
ttattgtctt gccctgcac tgggggtctg aatttttggg agcaggcaat atctgaaggt 2940
gcaaacaggc cctacggctg ttccctgcac aactctcatg gttttaattg taccctatct 3000
tccacatctt taaagctcat gtgaaaaatg ctgcattttt aataaactga tacatttg 3058

<210> 1622

<211> 3030

<212> DNA

<213> Homo sapiens

<400> 1622

atggtatgtt tccctccgcc caaacatctg tggagtaaag cataacaagg cagcattgct 60
gccaacatgt ctgcctccc gccatagggt ggTTTTtctc ctatctcaga attgaacaaa 120
tgtacaatcg ggTTTTatac cgagacattc agtTcccagg ggcaggcagg agacagtgcc 180
cttcctctat ctcaactgca aggctttcct cttttactaa tccacctcag cacagacct 240
ttacgggtgt caggctgggg cacagcctct catcccatga ggctatattt cagactatca 300
catggggaga accttggaaca atacctggct ttccagggca gaggtccctg cagcttttca 360
cagtacattg tgcctctgggt ttattgagac tagagaacgg cgaagacttt taccaagcat 420
actgcttgta aacgttttat taacaaggca tgtcctgcac agccctagat cttttaaac 480
ttgattccat acaacacatg tttttgtgag ctcaaatttg gggcaaagtc acaaattaac 540
agcatctcag ccaaccaatt gttcaaggta caggTcaaaa tggaatttct tatgtcttcc 600
ctttctacac agacacagta acagtctgat ctctctttct tttccctaca ggattgcaga 660
catgcagcac catgcctggc taattttgta tttttagtag agacgggatt tctccatgtt 720
ggccaggctg gtctcaaact cctgacctca ggtgatctgc ccacctggc ctcccaaat 780
gctgggatta caggcatgaa ccaccgcgc cggccatgct aagtccttct ttggctccat 840
tgtgctgtcc ctctgtctc ctctccagggt ccatctgcca cagtgtacg tgcaccagcg 900
tgacagcaac agtggctgggt ctctgccccg tgccctctcc actgggctca cacctgtctt 960
atTTTgtcct ttgggtggctc tgagaagcag cctctgcccc tctcccttct cttactctt 1020
tgtaagatcc tcttccctct gccctaccat gttgcttggc caccagggtg gaatagcaga 1080
gaacggctgc ttgtgtttga attccagctc tgccacttcg atagatttct gaactgagac 1140
atgtgactct ctaggcctat ttctgcatgg gtcggagagt gggcgggact gctttactga 1200
gttatagtga atgtagtttt aacctaagcg cctcacatga ctaactctc atccatcaag 1260
aatgagctca gctctcactt cccactcct cccccctg taaagtaacc tttctccaag 1320
gttatgcttc aacaggaata gctaacattt attaaattgt ggcacgtaag tatcttgat 1380
atattggctc attgaatcct cacacctact atTTTtacaga gatgccagtg gggcttgaga 1440
ttgaatcact tgcccaggct cccactgctg gtaaacagta gagggggctc ctgaccctc 1500
agtctggctt gacaacccat tccctcaact gcggatcccg gattccctta tcacctgtt 1560
gatttctcca tagctgtgggt aacatttggt gcatgaatgg accgttgaaa tagggcctgg 1620
cagggagaaa ttcaggaaat gaatgaatgg ttcttccctg gcggccttga tgacttaca 1680
gccctcaagg ggaagcattt tctcctggac tccttgatgc cggagctgct ggtgtttccc 1740

gcccagacag atctgcatga actccactg taccgggccg gacacctcat tctgcaggac 1800
agggccagct gtctcccagc catgctgctg gacccccgcc aggctcccat gtcacgatg 1860
cctgtgccgc cccaggcaat aagaccagtc acttggctgc tcttctgaag aaccaaggga 1920
agatctttgc ctttgacctg gatgccaagc ggctggcatc catggccacg ctgctggcct 1980
gggttggcgt ctctgctgt gagctggctg aggaggactt cctggcggtc tcccccttag 2040
atccgcgcta tcgtgaggtc cactatgtcc tgctggatcc ttcctgcagt ggctcgggtg 2100
agatggtgag aaggcgtggc tgagggactc ggagggtccac agcagcttag acctggagtc 2160
atctgttttg gtcttagttc tgacacttta atgggcttgg gaccctggag caaaagtctt 2220
cctctgtgag gcaaggattt caggagcgag gatttcagga ctgaggcagc ctgtgaagct 2280
gtgtaaccga gacacgcttt tccttaggta tgccgagcag acagctggag gatccccggg 2340
cagggacacc tagcccgtg cgtctgcatg ccctggcagg gttccagcag cgagccctgt 2400
gccacgcgct cactttccct tccctgcagc ggctcgtcta ctccatgtgc tccctctgcc 2460
aggaggagaa tgaagacatg gtaccagatg cgctgcagca gaaccgggc gccttcaggc 2520
tagtccccgc cctgcctgcc cggccccacc gaggcctgag cacgttcccg ggtgccgagc 2580
actgcctccg ggcttcccc aagaccacgc ttagcggtgg cttcttcgtt gctgtaattg 2640
aacgggtcga gatgccgacg tgagtgagtg ggggcatgct tgggaggcgc aggatggtac 2700
tggcacatct aacatctaca cttctctagc tcagcctcac aggccaaagc atcagcacca 2760
gaacgcacac ccagcccagc cccaaagaga aagaagagac agcaaagagc cgcagccggt 2820
gcttgcacac cgccttgca atagcagagg ctccaggctg actccttcct ggtgggaaag 2880
gaagatgcct gtcctctccg tggaggaccc tgggccctca ccgcaggcag cagtttgcac 2940
tttgaaaggt tattgggtcc cttcctcggg ctgtgttctt gctggtgagc aaaagtgttg 3000
cctgcagaaa taaaatgcag aacgtactct 3030

<210> 1623

<211> 3227

<212> DNA

<213> Homo sapiens

<400> 1623

aaagaatggc agagcaaggg gttgagcatt tgaaaagcgt cttctgccaa tgtcccagcc 60
atggttgtgc ttcagggccc aggcactcgc tcttcccttg gcccagaatg cccttctctc 120
agaatctgca cagcctccac ttccttcagg tgctagtcag atatcacctt atccgtgaag 180
tcttccctga ccaccttata tacaatcata cctctttccc ttcttcatcc catacatgtt 240
ggccactgca ctctacctta ttttccctca gtggcagttg ttacctcctg agatactatg 300
tttattttaca taacataaca tttgttccctg gtctgactac cctcacctcc cagaatatga 360
gcttcccaaaa ggctggggct gcattgctca ctgctttctt agcacacaca gggctctgaca 420
cattgtaggc cctcagttag tatttgttga atgaatggat atttcatgtt tgatgggatg 480
ctgacattcc ttgcctaaag agcctgctca gagtaggtgg cattcaaate tgattaaacc 540
aaagaatcaa tgatggcttg ccaggcctta aagcacggaa agggtagcta gatgagaggt 600
cagcacatgc aaaggcatgg cgcagttaga aagtagacaa tgcctctgtc tctctaaaac 660
acacgaacca tggcggccct ctctcaccag cacttagcaa gcagcactca cctcatgcag 720
ggatgtattc agtcagtatt cactgctctc tacatgccag gactcactgg tccatgggat 780
acaaagaaat gtaagacagg cctgttccca ctaacatctg tccagtcctc actgatgtat 840
tctctcagtg tgagcccatg gtgatacaac aataaacaac atggcctcca gttcccaccc 900
ccatgaggtt tgtgcttcca ctgggctggc taggggtgga ggggaggcgt ggcagatgct 960
catcaccagc ctccagagag gctcttctgt cttgagctgg agatgatgtc tgtaggaat 1020
gcggggacaa gcagggtcct ttccttggg caggagtctg agtcctcttc tcaaccttgg 1080
agactccatc ggtcctgagg ccactcggtta tttccgctac gctcatggat ggcacagag 1140
gggacttttag gatcccaggc agggcagata gtgtgatggg gctgttaaga cttgaggcag 1200
ctcaggagag tggatagccc agaggttcaa agtcctgttt ggtgtgagct ctttctccct 1260
ttgcctactt ctccctctag tacagaatac gccatcaata aattgcggca agaaggaagc 1320
gaggagggga tgtacgtgct gaggtggagc tgcaccgact ttgacaacat cctcatgacc 1380
gtcacctgct ttgagaagtc tgaggctcagt caggacactg gcttggacca ggccatacag 1440
ccatgaggtg tccagtgtag cctggttcag gagctgctgc agacagaacc acccttggca 1500
gggtggaact gaaaagcctg ggtctctgag aagatccctg ggaggtcagg caagggtccc 1560
tgctctcaaa aggagactgc tccccagtag ccagaccctt gcacccctcc cctgtagggc 1620
ccttcttccct tcatgggacc catggtgggg gtccaccatg gctctggaag acagaacatg 1680

accagaaaac caattcacac ccaacacttg gaaagtatag tgtcattatt tagagtggtt 1740
 tatttagact cagtgccacc atcatctcag acccagagct atgcctgtct acagcattca 1800
 ctggtacaaa ccagcgccca aatgccactt catccacatg gcctaacaca gttttttcca 1860
 aatggtagct tcagacactt taacaaattg ccaccccatc ttagaacaat gaatagagat 1920
 gtcttttagt gattgaagcg tagctgaagc tggggatgat gtgagataca ttctgagggc 1980
 taagatattc accagaatta ctgactttgc ctcactagac cacaaatgcc tttgttattc 2040
 atgtaattaa aaaaactaca aagtggaata ttttcaaaga cagttagttt tacaaaacac 2100
 tttacatcag tacactttta tcagtactgg ttaggctcca catgcatggg gagacctggg 2160
 acacggaggg gcctttggca cggagggtag acgcaggaag gacagcttat tggcgaaccc 2220
 ctggggctgg actcagtcaa gagtgggagg aggaaacggc agaaggaacc agcgctgcca 2280
 agtgtcctgg gtgatgcaat gcaggaacac caccacctgc ccaggctctt gctgaacagc 2340
 tgggcctcgg ggctccgtgg ctcagagcct gtcaggttca ttgccttccc agaatgcttg 2400
 ccgtctattc atcagtcatt ggaggaagtt taatgtgttt acgatggagg ggtgcatgag 2460
 acagcccagc ctctcctga agtgggaattg gcctgtgcag taccaagagt gtccgtgact 2520
 ccctaacaat gtcacatcac ccggggaaaa cagcagtcac agaaatgatt acttccaccg 2580
 cacactgtgg cccaccagac cctgtgccaa gcgttgtacc tacttgtgct tttttaagcc 2640
 ttgtaatagc catattaggt aggtgatatt atccattgt acagatgaag taactgagat 2700
 tttgaatatc atctcctagt ttacagctta tgtaagtctt tctggccctc attgtttacc 2760
 actaaaatag tttagtttgt acaaaaagag cccatgaggg aaaactgctt atacctccta 2820
 tctggcacca cagtgtccca aacctgggtc agacactgaa caccagctcc cagtgtggtt 2880
 ttctcaagt ggagacatgg cctggaaggg ctcagtttga ggctgttctt tgagaagttg 2940
 tgccatcata attattacct catatataat atctgctgga ctttataaag ggcttactaa 3000
 gtttttcaat acaccatgtt agataattgt agcaacaatc ctatgaggtt ggattttcat 3060
 gaactttatc ttacaggtga aaaaccaagt gacgcttttg tagaaatagc tactgtgtct 3120
 gctgtagtat taactccctt ttatcaatgc cttctcctgg acctgtttt attatttagt 3180
 tagttgttgg ttggattatt tattgataat aaactttatt tttgaat 3227

<210> 1624

<211> 3008

<212> DNA

<213> Homo sapiens

<400> 1624

aaaaaaaaa	aaaaaacct	cccggccacc	gctgcctcag	cctctgcctc	ccagcctctt	60
tctgagggaa	aggacaagat	gaagtggaag	gcgcttttca	ccgcggccat	cctgcaggca	120
cagttgccga	ttacagaggc	acagagcttt	ggcctgctgg	atcccaaact	ctgctacctg	180
ctggatggaa	tcctcttcat	ctatggtgtc	attctcactg	ccttgttcct	gagagtgaag	240
ttcagcagga	gcgcagacgc	ccccgcgtac	cagcagggcc	agaaccagct	ctataacgag	300
ctcaatctag	gacgaagaga	ggagtacgat	gttttggaca	agagacgtgg	ccgggacctt	360
gagatggggg	gaaagccgca	gagaaggaag	aaccctcagg	aaggcctgta	caatgtgagt	420
agaggagacc	tcacatttga	ccttggaag	ttggaggaag	ggctggagga	gggctccaga	480
ggaagggctg	gaggaagggc	tggaggaggg	ctccagagga	agggctggag	gaagggctgg	540
aggagggctc	cggaggaagg	gctggaggaa	gggctggagg	agggctccgg	aggaagggct	600
ggaggaaggg	ctggaggagg	gctccggagg	aagggctgga	ggaagggctg	gaggagggct	660
ccggaggaag	ggctggagga	agggctggag	gagggctccg	gaggaagggc	tggaggaagg	720
gctggaggag	ggctccggag	gagggctgga	ggaagggctg	gaggagggct	ccggaggaag	780
ggctggagga	agggctggag	gagggctccg	gaggaagggc	tggaggaagg	gctggaggag	840
ggctccggag	gaagggctgg	aggaagggct	ggaggagggc	tccggaggaa	gggctggagg	900
aagggctgga	ggagggctcc	ggaggaaggg	ctggaggagg	gcttcggagg	aagggctgga	960
ggaagggctg	gaggagggct	ccagaggaag	gcggttgctc	ctcactctgt	ggtctttgtc	1020
tgtccagacc	ttcccttctt	ggattgagta	atgtctcacc	tgcttgcggc	ctgcagcagc	1080
acctgcttct	agaaagtctc	cttagctgaa	aagtgccgag	taatctccct	tcctcccca	1140
aaccctgctg	ctggagtcc	caggttgatc	agcctggggg	gtagggggac	acagcaaggt	1200
caagctaggc	aaggacgagg	tggctggccc	cttcgagggg	ctcctgtcct	gggtgctgaa	1260
gtcttctgag	tgtccccgc	tataggaagg	tcaacctcac	cctcctgggt	gtgacctga	1320
accctgattg	tcgatctggg	ttgcatgca	ggagaccctt	gcaggtggca	gccttctgtg	1380
aaggagatgc	ctccccgcc	ctcctgtggg	gagggagggt	tgatctacag	ccggtttggc	1440

tgtgtaaaga gacaacttgc tcagataaat gattctgggg ctccagggtga gcccttgctt 1500
tgcccagtct ccggtgtcttt gtctagaact ccacctccta tctttttgag cctaacttga 1560
gcccctcagc tcagtgcaaa gagctggcag ctccggaggag actccaaagg gctgaggacg 1620
aggggggttg gctggagctg gttgtgggca gagaagtttg tgtgcataag gtttggagcc 1680
ttgatttgtg gagccctccc tgtctgccac tgctgccaac ttggggatca agaagcttcc 1740
tgtttgtaggg gaacctgctg ctttctgcat tagttggtaa aaatcagtgt tccacgcctt 1800
cttctgcagg aactgcagaa agataagatg gcggaggcct acagtgagat tgggatgaaa 1860
ggcgagcgcc ggaggggcaa ggggcacgat ggcctttacc aggggtctcag tacagccacc 1920
aaggacacct acgacgcctt tcacatgcag gccctgcccc ctgctaaca gccaggggat 1980
ttcaccactc aaaggccaga cctgcagacg cccagattat gagacacagg atgaagcatt 2040
tacaaccggg ttactcttc tcagccactg aagtattccc ctttatgtac aggatgcttt 2100
ggttatatatt agtccaaac cttcacacac agactgttgt ccctgcactc ttttaaggag 2160
tgtactcca gggcttacgg ccctggcctt gggccctctg gtttgccggt ggtgcaggta 2220
gacctgtctc ctggcggttc ctggttctcc ctgggaggcg ggcgcactgc ctctcacagc 2280
tgagttgttg agtctgtttt gtaaagtccc cagagaaagc gcagatgcta gcacatgccc 2340
taatgtctgt atcactctgt gtctgagtgg cttcactcct gctgtaaatt tggcttctgt 2400
tgtcaccttc acctcctttc aaggtaactg tactgggcca tgttgtgcct ccctgggtgag 2460
agggccgggc agaggggcag atggaaagga gcctaggcca ggtgcaacca gggagctgca 2520
ggggcatggg aaggtgggcg ggcaggggag ggtcagccag ggcctgcgag ggcagcgga 2580
gcctccctgc ctcaggcctc tgtgccgcac cattgaactg taccatgtgc tacaggggcc 2640
agaagatgaa cagactgacc ttgatgagct gtgcacaaag tggcataaaa aacatgtggt 2700
tacacagtgt gaataaagtg ctgcggagca agaggaggcc gttgattcac ttcacgcttt 2760
cagcgaatga caaatcatc tttgtgaagg cctcgcagga agaccaaca cttgggacct 2820
ataactgccc agcggacagt ggcaggacag gaaaaacccg tcaatgtact aggatactgc 2880
tgcgtcatta cagggcacag gccatggatg gaaaacgctc tctgctctgc ttttttcta 2940
ctgttttaat ttatactggc atgctaaagc cttcctatct tgcataataa atgcttcagt 3000
gaaaatgc 3008

<210> 1625

<211> 3857

<212> DNA

<213> Homo sapiens

<400> 1625

```
tctcaaagtt aagaagatca tatctgaaat ttgtgagcag attgaagggt gtgagtctct 60
acagccattt gaactgccta tgaattttcc agacagtccc cgacgtatga tgacatgatt 120
ataatttttc aactttacca tgatgcaaaa gcaatatgca ttccatagaa agcatacatc 180
aaattttgaa ttttgctttt actaactgca ggctaattgga cttttgttaa aagaagcaag 240
gaatgtaagt cagaagttgc tactgttttt ccatctggat gttatgataa aacatgactc 300
agagcagccc taaatagagc tcctgccttt tagataattc gctatccaag gaatcagggg 360
ctatttttcc aaattttctg ggtcaacttc tcttaaggtc tttttaagat tgtggctgat 420
aaaactccat accttactat ggaagaaatc acaaggacca ttcatattgg accaagtaga 480
ctagggcatc cttgcttcta tcatcagaag gatataaaac tagagaacct catcataaag 540
cagggtgagc aaatcatgct caactcagtt gaagagattg atggagaaat aatggtgagc 600
tgtgcagtag caaggaatca tcaaaactcac tcatttaatt tgcctttgtc acaagaagga 660
gaattctacg agtgtgaaga tgaacgtatt tacactctaa aggagattgt tgaatggaag 720
attcctaaga acagaacaag aactgtaaac cttacagatt tttcaaataa gtgggactca 780
acgaatccat ttcctaaaga cttttatggg accctgattc tcaagcctgt ttatgaaatt 840
caaggtgtga tgaaatttcg aaaagatata atccgcatcc tccccagtct agatgtcgaa 900
gtcaaagaca tcaactgattc ttacgatgct aactggtttc ttcagctgtt atcaacagaa 960
gatctttttg aaatgactag taaagagttc cccatagtga ctgaagtcac agaagcacct 1020
gaaggaaacc acctgcccc aagcatttta cagcctggga aaaccattgt gatccacaaa 1080
aagtaccagg catcaagaat cttagcttca gaaattagaa gcaattttcc taaaagacac 1140
ttcttgatcc ccactagcta taaaggcaag ttcaagcggc gaccgaggga gttcccaacg 1200
gcctatgacc tagagatcgc taagagtga aaggagcctc ttcacgtggg gccaccaaaa 1260
gcgtttcatt cccctcatga caagctgtca tccgtatctg ttggggacca gtttctgggtg 1320
catcagtcag agacgactga agtcctctgt gagggaataa aaaaagtggg gaatgttctg 1380
```

gcctgtgaaa aaatcctcaa aaagtcctat gaggctgcgc tgctcccttt gtacatggaa 1440
ggaggttttg tagaggtgat tcatgataag aaacagtacc cgatttctga gctctgtaaa 1500
cagttccgtt tgcccttcaa tgtgaagggtg tctgtcaggg atctttccat tgaagaggac 1560
gtgttggctg ccacaccagg actgcagttg gaggaggaca ttacagactc ttacctactc 1620
ataagtgact ttgccaaccc cacggagtgc tgggaaattc ctgtgggccg cttgaatatg 1680
actgttcagt tagttagtaa tttctctagg gatgcagaac catttctagt caggactctg 1740
gtagaagaga tcaactgaaga gcaatattac atgatgcgga gatatgaaag ctcagcctca 1800
catccccac ctgcacctcc gaaacacccc tcagtagagg aaacaaagt t aaccctgcta 1860
accttagcag aagaaaggac ggtagacctg cccaagtctc ccaagcgtca tcacgtagac 1920
ataaccaaga aacttcaccc aaatcaagct ggcctggatt caaaagtact gatttgtagt 1980
cagaatgatt tgggtgatga agagaaagaa aggagcaacc gtggggccac agcagtagca 2040
gaaacattca aaaatgaaaa acatcaaaaa taacaagatg tgacagaagc cacttaggca 2100
gcaaacataa atgttgcagt gaaaaaagaa gctagccttc tagctgaaaa acgagtattc 2160
cccaatggac tccagaagaa acttgattca tcgctgcaaa ggaaagaaca accttaaac 2220
ttttaacaga taaaacttac agaaaactat gatatagaat tcatatagtc tattctgttg 2280
tgtctaaatc tgtaggcatt gtgttgttgt tctttaggac gtatttattt aacttgcaca 2340
ttttttcaga ttcttatttc tactaccaac aactaagtaa ttgggaaata attctgtatt 2400
tcagtttctg agtaaaacca gtctgaaata ggataaaagc caccaaatat tttctttttt 2460
ttccagaaat tgttttgcca ttttttagtg ctatcatcat tcctaacaag actaacttac 2520
agaaaaataa ttatatctga ctgatttaaa atgttcaggt ttcttatcca aatcccttgg 2580
aactatggaa aggagtttga tttcacattc acagtgtatt tacaaaatac gctgtgtcat 2640
aaatatgttt gaattccaac agccaaagcc attgagagtc ataggagttt tccataacct 2700
tctcttctat gaccaacaa caagctcatg actgaaattt caccagattt ctgagacgat 2760
gtcttaatat tctatgtgct atgtaccaga taattcttta gatgaatgtt tcttaggatt 2820
gtaggaaaat tatctagtta atcataatat ttgatggaaa gaaaaagaca ataaaattgt 2880
aatataataa atttggctga caagaaacca aagtgattct taattagtat acatcagaat 2940
gatgctctta tagttgtacc atctataaaa attactttaa gggctctcac attttaataa 3000
tttatcttat tatgtattaa gtatacagga acaatattat ttttccttta acaaatgaa 3060
gagacaggct atctggttaa tgttacatag gaatttaata gtaatgcttg aacttcatcc 3120

atagatcata ctctgtacaa aatttgtag ctaacatcct atctcataat tattttatgt 3180
 tttgtggaga aatttgtaga tttgtacca aagtgttct gaagacaata aattgtgagt 3240
 caactttaga aaaaaaaaaa ttagagtttt ttcaatgttt atattctgat taagcttact 3300
 ttaccttaca ttttttctaa gtaacaatga atcctgattt ctagtgtcct aaaaattgct 3360
 tagtgatttg attgtggtaa tatcatttct tatctacaat gtctaaagtt ttatgggaca 3420
 gtttttcttt tatttatattt gcctgtttgt gcagataaga acagaaactt ttctaagacc 3480
 cacatttggg tattgaaggc cacagcgaat cttaacctaa cagccttgac aaactgcacc 3540
 atagggtgtt ttagactcat ataatttggt atttttcaaa caatagtga taattaatat 3600
 tttgtttgg aatttgagaa caattaaatt tgtactttta gtaactacca ttctttgatt 3660
 agaaaattaa gagaatgcat atcttacttt ggttgtaa atcaagggc tttctaatag 3720
 aaatcatata taacatttct aaatataagt cctttcacat actgtgtttc cagttgtctt 3780
 gatattgaaa agtgtaataa acttcatgct cacctattgg agatttggga aggttgaaaa 3840
 taaacttcct aattttt 3857

<210> 1626

<211> 2907

<212> DNA

<213> Homo sapiens

<400> 1626

aagcggtagc cgccgatcgg gatctgtgcg gggagccgga aatggttggt gactacgtct 60
 gtgcggctgc gtggggctcg gccgcgcgga ctgaaggaga ctgaaggccc tcggatgccc 120
 agaacctgta ggccgcaccg tggacttggt cttaatcgag ggggtgctgg ggggaccctg 180
 atgtggcacc aaatgaaatg aacaaagctc cacagtccac aggccccca cccgccccat 240
 ccccgaggact cccacagcca gcgtttcccc cggggcagac agcgccggtg gtgttcagta 300
 cgccacaagc gacacaaatg aacacgcctt ctcagccccg ccagggggtg tccacatacg 360
 ttgtcccgac acagcagtac cctgtgcagc caggagcccc aggcttctat ccaggtgcaa 420
 gccctacaga atttgggacc tacgttggtg cctactatcc agcccaagggt gtgcagcagt 480

ttcccactgg cgtggccccc gccccagttt tgatgaacca gccaccccag attgctccca 540
agaggggagcg taagacgata cgaattcgag atccaaacca aggaggaaag gatatacag 600
aggagatcat gtctggggcc cgcactgcct ccacaccac ccctccccag acgggaggcg 660
gtctggagcc tcaagctaat ggggagacgc cccaggttgc tgtcattgtc cggccagatg 720
accggtcaca gggggcaatc attgctgacc ggccagggtc gcctggccca gagcatagcc 780
cttcagaatc ccagccttcg tcgccttctc cgaccccatc accatcccca gtcttggaa 840
cgggggtctga gcctaatttc gcagtcctct ctattcctgg ggacactatg acaactatac 900
aaatgtctgt agaagaatca acccccatct cccgtgaaac tggggagcca tatcgctct 960
ctccagaacc cactcctctc gccgaaccca tactggaagt agaagtgaca cttagcaaac 1020
cggttccaga atctgagttt tcttccagtc ctctccaggc tcccaccct ttggcatctc 1080
acacagtggg aattcatgag cctaattggc tgggtccatc tgaagatctg gaaccagagg 1140
tggagtcaag cccagagctt gctcctcccc cagcttgccc ctccgaatcc cctgtgccc 1200
ttgtccaac tgcccaacct gaggaactgc tcaacggagc cccctcgcca ccagctgtgg 1260
acttaagccc agtcagttag ccagaggagc aggccaagga ggtgacagca tcagtggcgc 1320
ccccaccat cccctctgct actccagcta cggctccttc agctacttcc ccagctcagg 1380
aggaggaaat ggaagaagaa gaagaagagg aagaaggaga agcaggagaa gcaggagaag 1440
ctgagagtga gaaaggagga gaggaactgc tccccccaga gtagtaccct attccagcca 1500
acttgtctca gaatttggag gcagcagcag ccaactcaagt ggcagtatct gtgccaaaga 1560
ggagacggaa aattaaggag ctaataaga aggaggctgt tggagacctt ctggatgcct 1620
tcaaggaggc gaacccggca gtaccagagg tggaaaatca gcctcctgca ggcagcaatc 1680
caggcccaga gtctgagggc agtggtgtgc cccacgtcc tgaggaagca gatgagacct 1740
gggactcaaa ggaagacaaa attcacaatg ctgagaacat ccagcccggg gaacagaagt 1800
atgaatataa gtcagatcag tggaagcctc taaacctaga ggagaaaaaa cgttacgacc 1860
gtgagttcct gcttggtttt cagttcatct ttgccagtat gcagaagcca gagggattgc 1920
cacatatcag tgacgtggtg ctggacaagg ccaataaaac accactgcgg ccaactggatc 1980
ccactagact acaaggcata aattgtggcc cagacttcac tccatccttt gccaaccttg 2040
gccggacaac ccttagcacc cgtgggcccc caaggggtgg gccaggtggg gagctgcccc 2100
gtgggcccgc tggcctggga ccccggcgtc ctcagcaggg accccgaaaa gaaccacgca 2160
agatcattgc cacagtgtta atgaccgaag atataaaact gaacaaagca gagaaagcct 2220

ggaaacccag cagcaagcgg acggcggctg ataaggatcg aggggaagaa gatgctgatg 2280
 gcagcaaaac ccaggaccta ttccgcaggg tgcgtccat cctgaataaa ctgacacccc 2340
 agatgttcca gcagctgatg aagcaagtga cgcagctggc catcgacacc gaggaacgcc 2400
 tcaaaggggt cattgacctc atttttgaga aggccatttc agagcccaac ttctctgtgg 2460
 cctatgccaa catgtgccgc tgcctcatgg cgctgaaagt gccactacg gaaaagccaa 2520
 cagtgactgt gaacttccga aagctgttgt tgaatcgatg tcagaaggag tttgagaaag 2580
 acaaagatga tgatgaggtt tttgagaaga agcaaaaaga gatggatgaa gctgctacgg 2640
 cagaggaacg aggacgcctg aaggaagagc tggaagaggc tcgggacata gcccggcggc 2700
 gctctttagg gaatatcaag tttattggag agttgttcaa actgaagatg ttaacagagg 2760
 caataatgca tgactgtgtg gtcaaactgc ttgagaacca tgatgaagag tcccttgagt 2820
 gcctttgtcg tctgctcacc accattggca aagacctgga ctttgaaaaa gccaagcccc 2880
 gaatggatca gtatttcaac cagatgg 2907

<210> 1627

<211> 2963

<212> DNA

<213> Homo sapiens

<400> 1627

cacaagcaca tgtgtgcca cacagacca ggcatacgca ggcacacaca ggcaggtgtg 60
 tgaacacagg cacatacaga caagcgggta tttgcacaca tggacacaca tggatgcact 120
 caggcatgta cacacgtgtg cactcataca tgacatgcac tctcacacat gcgggtgcac 180
 accttccccg ggttctctct ccacccacg tctcaccgag caagggttg tctctccctt 240
 gtggcttttg ctgtgtggct ccccgcacct gaggtgcgc tggtcaggac aggttgggcc 300
 atgtgcgga aacagccagg cctgaacccc aacgactcag aacagcacgg gcgtttcttg 360
 cccctgttgc gtgtctgttg gtggggggccc taccggagg cgtggctgag ggctgcgcct 420
 tccccagtgt gccggctgct ggggtgaggaa acgagcacgg tggagccaca cggggcacct 480
 gcagctttgc tgggcagaga ctctctgcgc tactgtgct cccacttcct tggccagggc 540

cagcctgtgg ccacgcctga ggtcatggca ggtggggatg gatgagcctc cagaggcgct 600
gggtgggcag ccccgcccc tcaacgcctg tcacctcagg gcctctcagg tgtggctgca 660
gcatcctctc caggaagtct tcctgttcac cccagccagg tacatgtggt caaggaccag 720
gtggcggggc agggtagca catagcccag gtcctgtctg taaggaccag gtggcgggag 780
cagggtgagt gtacagccca ggtttctgct gtaaggaccc ggtggcgggg acagggtaag 840
cgcacagccc acgtccccgc tgtaaggacc aggtggcagg gacagggtga gcacacagtc 900
caggccccg ctgtaaggac cagggtggcgg ggacagggtg agcgcacagt ccaggcccc 960
gctgtaagga ccagggtggcg gggacagggt gagcgcacag tccgggtccc cgctgtaagg 1020
acccggtggc ggggacaggg tgagcgca gcccgggtcc ccgctgtaag gaccggtgg 1080
cggggacagg gtgagcgca agcccacgtc cccgctgtaa ggaccagggt gcggggacag 1140
ggtgagcgca cagtccgggt ccccgctgta aggaccagggt ggcggggaca gggtagcg 1200
acagtccggg tccccgctgt aaggaccagg tggcggggac agggtagcg cacagtccgg 1260
gtccccgctg taaggaccg gtggcgggga cagggtgagc gcacagtccg ggtccccgct 1320
gtaaggaccc ggtggcgggg acagggtgag cgcacagtcc ggtccccgc tgtaaggacc 1380
cggtagcggg gacagggtga gcgtacagcc caggtttccg ctgtaaggac cagggtggcgg 1440
ggacagggtg agcacacagt ccgggtcccc gctgtaagga ccagggtggcg gggacagggt 1500
gagcacacag tccgggtccc cgctgtaagg accagggtggc ggggacaggg tgagcgta 1560
gcccaggttt ccgctgtaag gaccagggtg cggggacagg gtgagcacac agtccaggtc 1620
cccgctgtaa ggaccagggt gcggggacag ggtgagcgca tagcccagggt ccccgctgta 1680
aggaccagggt ggtggggatg gtggggacag ggtgagcaca cagtccgggt ccccgctgta 1740
aggaccgggt ggcggggaca gggtagcac acagtccagg tccccgctgt aaggaccgg 1800
tggcggggac agggtaagcg cacagcccac gtccccgctg taaggaccag gtggcgggga 1860
cagggtgagc gcatagccca ggtccccgct gtaaggacca ggtggtgggg atggtgggga 1920
caggttagc atgcagccca ggtccctgct gtaagggaag gtcgcgagc tgggctggaa 1980
ttctgggctc agccccctcc ttactcacag gcccccttc ctggatggtg gaggtgcccc 2040
ggcaccaccc ttgttgtctg ctcatggcct tggggtgggt cctaccgagc tggggaagcc 2100
tgggggccgt agggagccca gagtcagcct ggaggagggt gcgctttggt gagtttgaa 2160
ggcaagcagg ggtgagctgc agggggccag gaaagggtga ctgtgactct gggagcagcc 2220
gtgccaaggc cctgggactg gaggggcttg gccagcctca aggccttact ccagcccact 2280

gcactctcag attccagctc cctggggcag gtgagatggc cgagccaggt ccttggatga 2340
 tctctgttcc tgttccccctc ttcccaggaa gcgccgcgga gccatcaaca gcaagcagct 2400
 cacctacctg gagaaatacc ggcccaaaca gaggctgcgg ttcaaagacc cacacacgca 2460
 caagacccgg tgctgcgtta tgtagctcag gaccttggct gggcctggtc gtcattgtagg 2520
 tcaggacctt ggctggacct ggaggccctg cccagccctg ctctgcccag cccagcaggg 2580
 gctccaggcc ttggctggcc ccacatcgcc ttttctctcc cgacacctcc gtgcatttgt 2640
 gtccgaggag cgaggagccc ctcgggccct gggtggcctc tgggcccttt ctctgtctc 2700
 cgccactccc tctggcggcg ctggccgtgg ctctgtctct ctgaggtggg tcgggcgccc 2760
 tctgcccgcc cctctccaca ccagccaggc tggctctctc tagcctgttt gttgtggggt 2820
 gggggtatat tttgtaacca ctgggcccc agccctctt ttgcgacccc ttgtcctgac 2880
 ctgttctcgg caccttaaatt tattagacc cggggcagtc aggtgctccg gacacccgaa 2940
 ggcaataaaa caggagccgt ggc 2963

<210> 1628

<211> 3342

<212> DNA

<213> Homo sapiens

<400> 1628

aataagctaa cttcatggcc ttaaagagcg tttattctcc gggatgaatat attattgcaa 60
 agttacctct cctcaccctt cactctactg ccatctgcat tccaccacc actgtactcc 120
 aaggtcataa cttgcacggt aatccagtcg gatactttgc aattttattt tccttgaccc 180
 ctattagctt ttgataccat tcctttacca ctggcttctt ttggcttcat tcattcagca 240
 aatatgtatt gattgccttc ttaaggactt gattctttat cccaaatgag acaggaagcc 300
 attgtaaaagt ggtaagctgg acagtgttgt ggctggtgca tttttaagc atcgctatgg 360
 cagctaagag gcggatggat ggagggtggc agaaaggata tagggagcga ttaggaggct 420
 ggagcagcat ccaagaaaga agtggtggca agatggactg gtgggtaaga gtgggaagag 480
 agagcagtgg gctgatgtgc ttctctacat ttgcctcggt tgctttcttc ctctctggtc 540

ctacctttct gtggaccttt gcagccttgc cgccacctgt ctctgctgat aattctcatg 600
gttctgtcac tgggctgctt ctcttgaagt tgttgaacgc actcttgccg aatgacctca 660
tctacttcca cagctatgat aaccatttat atgccagcaa gtctcagatt tataactgcc 720
aatccgatct cttctcttga gcttcagatg tgtggatatc tcagtttata tatcccagat 780
ccccaaaact cagcaaaaat gagttatggt cccttccaga catgttcctt ctcccatatt 840
gcctatcttg gtaaattgaa ccccatcct actgggtgtt tggcatcatt cttataacct 900
cctgccccctg cctcccacag tcattcccaa atcctgccag gtataccttg cagagagctc 960
gcaaattctt ccacttctct acttccccta ctgccagtac cctcgtttgg gctattgtca 1020
actctcattc agaggattac aaaagtctcc taagttgcct tcttacttgg actcttgctt 1080
gcctctgata ctttctccag ttgttacctg agtcactttt tcgcagatct gatattgctt 1140
aaaatccacc aaaaactcct cttttgccta cagaataaag cacagattta ttttttctt 1200
cttaaagcag atgtttaaac atggtttaac aaggcccttc acaacttaac ctagcctac 1260
ctttctagcc ttctcttttg taactctcta cccaagacac actgaaatgt ttcatttctc 1320
taagcattgc tctcccttgc ttccagccag acctttgctt tggaggatgt gctaggatct 1380
tagtcatagg acttgtgccc atgaggtttt tagcctaggc aagaagctga tttgtgggct 1440
tgatatttca ttgagaacaa ctgcttctca gtgtaggaaa tagtgaagac taggttgaaa 1500
gcacgtgctc acaacatttc tgagaccctt agggtgccca tgtccttgga cagatgagtg 1560
attaggtttt ggggatgctt cagatactga gtcaggaact gactgacaaa ctacgtaatt 1620
gtttcctgct cagggtccggg cagctcccc tccacctaca cagaatcacc gaaggccagc 1680
agagaagatt gaagatgtgg aaatcacact ggtgtgatga tgggcttgcc catccattac 1740
tgctacaatc aaggccaggc ttggagtttg gccagtcttg ttttttaggc acctttgcat 1800
gatgatgact cttgaacaga gcaaaaaaca aggaggatta tgtgtgactg ggtggccttg 1860
tagactcctc ccacgttttg aatatttcgt gcctttttt tgttgtcatt ttctatgtca 1920
tttctcctac catagcacia atcctagcgg accttaggag caaagagggg ggcagccctc 1980
atgcctaaca gtgggtctgtt tttatatgag actcaagaac aggcctcatt ccagggcaca 2040
gtccctaaat tactgatcat gtgcactcgt acagtatatt actgtgacca caaggatgtg 2100
gcaaagattc tcactttct tcaagtggct tttgctcatc tgattgagaa ttaatcagat 2160
catgttggct acataaggaa acagaaggag ggatttcagg agaggctggc tcctcccaa 2220
ggttagtccc cagactgaga aagtgaacc ttattgggaa aaattggact gccctgaatt 2280

tagcaccaat tgcattaacg cacatctctt ccacaactaa cagacttaaa ataacagtgt 2340
 ccttcgtatt aatatctgtg ccattcattt agaattagca gagctaatat ggaggggctg 2400
 aactagtagc cacatcttgt tcatcacata gactaataga aaggaggctg tggctaaagc 2460
 agaaatggaa cttccggatc tgaaattagc caatataatg ttcttttgta tttgggtatt 2520
 tttcatctta atttttacag catatactct tcttaccagt atccttagaa tccaaatgtc 2580
 tagataagtt gaggacacat acctgcattg ttgagcttct ctactgggga cgccccggca 2640
 ttattttatt cccaagccag cagaccggcc cagacagcca ggctgtggct ggtccagacc 2700
 aactgctatg gtggaaaatg cagcttccag gtcccactac cctgacattt ccgtggaagg 2760
 aagaacctgg tggctcgtgg aggaaaccag ctttctatga gaaaggactg aaggattgctg 2820
 caccctgcac aagtacagat tgaccaggaa aagacaagtg tcttctgtgt gtcacaggga 2880
 aagccaggag tggccttctc tgcaggccag caagcctgca gcagcaggtg cccccacgtc 2940
 aggtgctgac tgtccgctgt ccgctcctgt agaaggtagg gagcacaata cctagggact 3000
 aagggatgtt cgccggttgt ggtttgtttt tttttttttt ccttggttaa gaaatcaaat 3060
 ttgcagaatt taatctacaa gtcgtattat gctttgaaaa ctccatccct cctaagaatc 3120
 ttaaaaaact tgaaatgctc gccaaatgct cccatgggat ttttgaccaa aagtaagggtg 3180
 ataactgaag aaatttttta gttctttgat cacttcagtg acaataccca ttaatgaatc 3240
 ttctccatga tttgggggtt ttttctgttg ttgtttttta cacttcttaa cctgttgatc 3300
 tatttgaggt cttttgtgtt tatcaaactt attcttaagt tt 3342

<210> 1629

<211> 3469

<212> DNA

<213> Homo sapiens

<400> 1629

ttaccatggg gattacatga aatatgctaa agttagaacg atttatttta aacttaaaac 60
 aacctcaatt gcatataaaa actcaactcc ttacagcac caccctcttt tcctgtgtta 120
 ctgatatcac acattatgtg tttatatatt atgtatccat taacatggac ctatatagtt 180

acttcttatg cttttgtctt ttaaataccta taaaagaatt aaaaatgaat ttacaaacca 240
atTTTTTTTT tttttttaag agatggagtc ttactctgtc acccaggctg gaatgtagt 300
atgcaatctc ggctcactgc aacttccgcc tcgtgggttc aagcaattct catgcctcag 360
cctcccgagt agcttgaatt acagatgcac cccactgtgc tcagctaatt tttatatattt 420
tagtagagat gggatttcac cgtgttggcc agactggctt tgaactcctg acctcaagt 480
atttgcctgc ctgggcctcc caaagtctg ggataacagg catgagccac tgtacctggc 540
acaaacaaaa ttttaataata agcttctatg ttctttgccg gagaacttta tattttcaca 600
tggctttgag ttactgacta gtgtcctttt tgtttcaact tgaaggattc cttttagcat 660
ttctgtaggg caaatctaatt tggtaaaact cctttgactt ttttatctgg gaatttctcc 720
ttcatttttg aaggactgtt ttgtgggatg tattattctc aattgacagg tgttttgttt 780
gtttttttta gctctctgcc ctttttctct tctgggactc ggtaataacct atattggctt 840
gcttgggtata gtcagatata ttaagctagt tacttttttt tttctcttca gactttttaa 900
atttaattta attttataga gatggggctt caccatgttg cctgggctgg tcttgaactc 960
ctaggcttag gtgacacctg tgccttggcc tcccagatta caggcatgag ccaccatgtc 1020
cggcctgtct ttcagacttg ataacttcaa atgatctgtc ttgaagtctc ctgattcttt 1080
cctctgcctg agtctgctgt taaatccctc tagtgattcc gacccttct ccccccattc 1140
agttactaca tttttcagct ccacagtgtg ttgggttttt agaaataatt ttctctttgt 1200
ttatattctc acttgtttat atattgttta tctaattttg cttagttgtc cacactctcc 1260
tttagctcac tgagcatttt ttagatagtt gttcttaagg ttttatagag taagtcagca 1320
gcctctgttt ctttaggggtt ggtttgtgga gatttctttc tttcaatcgt ccgtgtttcc 1380
ctatttcttt atgtgccttg tgatcttttg tgaaattcag gcatttgcaa aaccagctac 1440
ctgtcccttt gcagactggc tccatgcatg gaaaggcctt cactgattag cgcaccataa 1500
aggcttgggtg tcctctcaaa cttttcctgg ggatgccatc ttcctgggc ctgtgcatat 1560
gcattagttt tagtttctc ctatacacag ctgcctttca gttttctta gttttcctga 1620
gtttgcctcc agcttctct tggagtctta gctgttctgt tattcttttg tctctgatct 1680
cttgcccaca ggtttctgta ggtctgtgtt cccctgcagc tcaactcatg catggtaccc 1740
atcattgctt tcagctcttt ccaacctct atccaaacta tgccattgtt cccattagca 1800
ctctgattca ggcaagacag aaagcagtcc cttgggcagc tccacacaaa ccagaacatt 1860
gtaggtcagt ttcattcttt accttatgtc ctgagggaag agccagggtg gttttcttct 1920

gactattgta ctgaggaggg catttggcaa gaggtagcaa aaatgccatg aaatttcctg 1980
 ctactttgag tgtggctttt tcttggatag gtggttcctt tggttgctgc tcaactgggt 2040
 tctagagttc tcataaagct aaacatTTTT aaatttttgg tccatatgtt tattcattat 2100
 tttttgtggg ggtttggggg cctggagctt cacagtctat cttgctgaca tgaaactact 2160
 ttttatgttc aaaatcattt ttataggtta tgctattaat tgctagattg gcattacgaa 2220
 tgttacactt ttagaagtca cttttttaaa aaaaagtatt tgggacagta tagtttgtaa 2280
 ggtgggtgtc cacgagtgc tagctgtctt tccataggtc tggtttggtc tgttgatttc 2340
 acaaggctct tatgcctcat ggacagtgtg aattaaagt ctattatcta gaaaaggact 2400
 gactgggtgt ctgatggaaa gtcactctaa ctgatttgat agcatgtatg aagtaccttg 2460
 atgagacttc ctactctgga atcttatgtg tatatttaac aaaaaagaac aatgtagttt 2520
 ctttttgcca cttcagtctg ggtttatgcc ttgtaaatga gtttgctgtg acacagagaa 2580
 tgtgaaactg ctattttgtc aggcagtgtt cctaaataag catttcagtt gcactacata 2640
 tatgtgggtt acattccaat aaaccttatt atatgttgag aatatcgtaa gtcaaaaatg 2700
 catttaagac cctggaaaac ccattagaaa gtcaaaaaaa ttgtaagtca aaccatcata 2760
 agttgggtac catgtgtatt aaggaaaaaa aatcaagaaa atattaatgg ttgtttataa 2820
 tcttaacata tctgcttta ctttgaaatt ttcaaaattt acagtgcgca tgcattttat 2880
 aatcagaaga tgtaataagg ctaatttaaa ttgttagat tttaccatt tttaagatta 2940
 tgtttaaaaa cctgtatgag agaacatatt tggagacagg aacaaaaata tggcttgtaa 3000
 cagaaacagt atgtggctat aagggttaat ggcagggggg tgggggcggt ggtgggcata 3060
 gaattgagaa ggaaaaaagc agaatttggt caatgcacac aagcaatgag agtaaggtgt 3120
 ggtatgccc aatggaaaa gaggtatttc agagtgggtcaggagcttag aggagcgtaa 3180
 aggagagtga aacttgaggt ccaggtagcc tgaactgtgc ttttctgtg gctgagggtg 3240
 agtgatcaag gtgtgaagtc tactagtagg aatagacctc agttgatcct caaagatgg 3300
 gagtattgag agagtgttta tctctaactt agcctttgtg tttctcttca cagaatttct 3360
 tcaggttgaa ttacctagaa gtttgtcact gacttgtgtt cctgaactat gacacatgaa 3420
 tatgtgggct aagaaatagt tcctcttgat aaataaacia ttaacaaat 3469

<210> 1630

<211> 3127

<212> DNA

<213> Homo sapiens

<400> 1630

```
cagccccattc tcctcctgga cccctcagge tctcatgccc cgctgctgac tgtgcccggg 60
cttggggccct tgcccttcca ctttgcccag tccttaatga ccaccgagcg gctctctggg 120
tcaggcctcc actggccact gagccggact cgctcagagc ccctgcccc cagtgccacc 180
gtccccccac cgccggggccc catgcagccc cgcctggagc agctcaaaac tcacgtccag 240
gtgatcaaga ggtcagccaa gccgagtgag aagccccggc tgcggcagat accctcggct 300
gaagacctgg agacagatgg cggggggaccg ggccaggtgg tggacgatgg cctggagcac 360
agggagctgg gccatgggca gcctgaggcc agaggccccg ctcccttcca gcagcaccgg 420
ggacactgtg ctgcttctc tggcccaggg tgggcaccgg cctctgtccc gggctcagtc 480
ttccccagcc gcacctgcct cactgtcagc cccagagcct gccagccagg cccgagtcct 540
ctccagctca gagaccctg ccaggacct gcccttcacc acaggttcac tctaaagaag 600
tagcattcct gggtcacatg gtgtgagcat tttgagagtc gttggtgtcc tagacgcaca 660
gaaattgacc ctcccaccg caatgagcag gacctctc tgaagacttc ccacggggct 720
gatctatgac tcggtcatgc tgaagcacca gtgctcctgc ggtgacaaca gcaggcaccc 780
ggagcacgcc ggccgcatcc agagcatctg gtcccggctg caggagcggg ggctccggag 840
ccagtgtgag tgtctccgag gccggaaggc ctccctggaa gagctgcagt cggctcactc 900
tgagcggcac gtgctcctc acggcaccaa cccgctcagc cgcctcaaac tggacaacgg 960
gaagctggca gggctcctgg cacagcggat gtttgtgatg ctgccctgtg gtgggggttg 1020
ggtggacact gacaccatc ggaatgagct tcattcctcc aatgcagccc gctgggccgc 1080
tggcagtgtc actgacctc ccttcaaagt ggcttctcgt gagctaaaga atggtttcgc 1140
tgtggtgcgg ccccaggac accatgcaga tcattcaaca gccatgggct tctgcttctt 1200
caactcagtg gccatgcct gccggcagct gcaacagcag agcaaggcca gcaagatcct 1260
cattgtagac tgggacgtgc accatggcaa cggcacccag caaaccttct accaagacct 1320
cagtgtgctc tacatctccc tgcacgcca tgacgacggc aacttcttcc cggggagtg 1380
ggctgtggat gaggtagggg ctggcagcgg tgagggttc aatgtcaatg tggcctgggc 1440
```

tggaggtctg gaccccccca tgggggatcc tgagtacctg gctgctttca ggatagtcgt 1500
 gatgcccacg gcccgagagt tctctccaga cctagtcctg gtgtctgctg gatttgatgc 1560
 tgctgagggt caccggcccc cactgggtgg ctacatgtt tctgccaaat gttttggata 1620
 catgacgcag caactgatga acctggcagg aggcgcagtg gtgctggcct tggagggtgg 1680
 ccatgacctc acagccatct gtgacgcctc tgaggcctgt gtggctgctc ttctgggtaa 1740
 cagggtggat cccctttcag aagaaggctg gaaacagaaa cccaacctca atgccatccg 1800
 ctctctggag gccgtgatcc ggggtgcacag taaatactgg ggctgcatgc agcgcctggc 1860
 ctctgtcca gactcctggg tgcctagagt gccaggggct gacaaagaag aagtggaggc 1920
 agtgaccgca ctggcgctcc tctctgtggg catcctggct gaagataggc cctcgagca 1980
 gctgggtggag gaggaagaac ctatgaatct ctaaggctct ggaacctct gccgcccac 2040
 catgcccttg ggacctggtt ctcttctaac ccctggcaat agccccatt cctgggtctt 2100
 tagagatcct gtgggcaagt agttggaacc agagaacagc ctgcctgctt tgacagttat 2160
 cccagggagc gtgagaaaat ccctgggtct agaatgggaa ctggagagga ccctgagagg 2220
 agacgggctg ggcggcgacc cccacagggc tctcgagaac agattctccc ctccagtatg 2280
 ggccctggct gtggcccca ttctcagga ctgcacagag gaggactggc tccggctccg 2340
 tcgggctcac ccttaaccac tattctggc tctgcaaacc ccagacttg cacacagccc 2400
 caggctccac acagaaatgt gaacttggcc tcagacaggc tggcccttcc taggctctag 2460
 gggctagggg ggagtgggga gccaaagggt cccatattcc tgagtgcagg ggtagtcctt 2520
 ctcacctgtt tctcagacg actctggaag ctctcctcta ccaccgggca ctgagacgaa 2580
 gctccctgac agccgagact ggcagccctc catctggtcc gtaccctgc cagaggcccc 2640
 cctacatcaa cctctggcg atgccctggt ggagcagatg ggtgctctgg gagtctgtg 2700
 ctctctgatc caatggtgcc aaacccttca tctccccag aagcgcagca taccctggg 2760
 acccctcggc cactgcccac tcggggagcc ttctctgttt ctggggcctc cccaccata 2820
 gctctgattc ccacccaca taggaatagc ctgactgagg gggaaggggt gggagagaag 2880
 atacagacat ggaggagggg aggctgctct ggcaaagtct tcaaggcttt tgggggtcca 2940
 ggctgggggt caagaaggaa aatgtgtgtg agcatgtgtg agtgaggcgt gtgtgtgagc 3000
 gtgtgtgtga gtgaggcgtg tgtgtgtgtc ttctctagga cccaccatac cctgtgtatg 3060
 tatgcatgtt tttgtaaaaa ggaagaaaaat ggaaaaaaat ctgaacaata aatgttttat 3120
 ttgcttt 3127

<210> 1631

<211> 2948

<212> DNA

<213> Homo sapiens

<400> 1631

acaaaaaaga catccagctc taaggagctc aaaacatcct gaggacagtg cctggaggtg 60
agaaggaagc ccccgccctg gtccataccc caccaccaac ttgcataatg gggggtgatg 120
tcacccaccc tccactcccc tcaaaggagc agctgctctg gtggtctctc ccaggctctg 180
ggggcggacc catgggaggg gctgtttttg tacaaagctg taacattgtg gggacagggg 240
actgctgggg ccaacgtcct gactttcggg gccggcagca ggctgaccgt gctgggtgag 300
ttttcgcggg accacccggg cggcgggatt caggtggaag gcggcggctg cttcgcggca 360
cccgggccgg ccctgtgctg ggagacctgg gctgggtccc cagggtgggc aggagctcgg 420
ggagcccttag aggtttgcat gcgggattgc acctccgtgc tcctacgagc agtacttcgg 480
gccgggcacc aggctcacgg tcacaggtga gattcgggcg tctccccacc ttccagcccc 540
tcggtccccg gagtcggagg gtggaccgga gctggaggag ctgggtgtcc ggggtcagct 600
ctgcaaggct acctccccgc tcctgggaaa agactgggga agagggaggg ggtggggagg 660
tgctcagagt ccggaagct gagcagaggg cgaggccact tttaatcttt tttctggggt 720
gttttagagag aaggtgaacg atggaggaga ggatttgta ggactctggg agaggcgaga 780
ctggagagga cgaagggaaa tcctggtttg gggaatgggt aggagtgggg gtaactgcta 840
ttcgtaggca aaaagagctg agcaggctgg gaacagcgcg ggtgggcaag ggtcagcact 900
gcgggcaggc ggggtgggtgt tagggggcag aaatcctgca gccgagggtg cagtagaaca 960
cagaagaaaa agcctgccaa acaaaagtgg aacagagaag ccaaaaaggg agatgaacat 1020
gagtcagtga agaaaagaat gaaagtttac tgtttagcag tgtggatctc taatccgact 1080
taaaactcct tgttcccgat tcctattcct cctaagccag agatccctgg gtccagggtg 1140
agggcacggc attcatgctt acccacgggc tgggtcaaca agaggtgctg acctgagagt 1200
agggcacata acctcagcca ctgggggtaca cttaccaccc ccgccccctg gtagctcctt 1260

ccctatcct gaaatctccc ttagcacact aagtattcta ggttaaacag cccagatgtt 1320
 cagggagttc attcgccaca aacacacatt aaaatgcaga caatttgcct gtgagatgag 1380
 gaaaattctc tggaagattt aggccctgag agctgaaaag ggaccctaaa cattacctgg 1440
 tgacaactgc cctgaggcca gagaagagaa ctcacaatat tggcatatta accggtacca 1500
 tttgtagtta ggctgtcatt aatctgggtg taatggggct cagctacagt gaagcgtatc 1560
 cagaggaaat gtggggttcc tgcagtcagc tggggcaccg aaaagacca gaatttagaa 1620
 ccagataaag gctgagttcg aacctctggt tcttttgtga tgtggtgacc ttgggcaaat 1680
 taatgtgtga acctcagttt cctcaactat aaaatgtaat gaacaatacc taccacttac 1740
 tattgctgtg aggaagaaaa gagagtcaac atgtaccgtg tacagattat tgatgtaatt 1800
 caatggttct tttcccatc ctctaggag gtcactgggg agacaggggg cagggtcagc 1860
 ccagtgccaa aggatgggca ggatctgaag tgtggaaatg gagtaaggct gtgtctgtgt 1920
 cagaggtggg ttgggaagat gtgagacaaa catcacaatt ttgcctaagg tgaatccaac 1980
 ccacaagtag agcacaggcc aacagcagct cactagtaca catacttaca ccagcagctc 2040
 actagtacac acacttacac cagacgtca ctggtacaca ctcacaccag aagctcatta 2100
 gaacacacac accgtcagct tgctagtaca cacacttaca ccagaagctc actagtatac 2160
 acttacacca gaagctcact agtacacaca ctactccag aagctcacta gtacacacac 2220
 ttacaccac agagacaagc cccacaccac acggactcac aaatgcagaa gaagagttga 2280
 ccctgccctc atgtacagat agtatgctgg tgtgtagtga gaggcggcta gtgttcgcca 2340
 cgctgttgc atcaataact attccacaga acagcataca tggtaagga atatTTTTAA 2400
 TTTTacaat gaggactgag tgTTTgctaa atgaagaaat caaaggagta cattctggag 2460
 ggctggtaga ctcccagagc cagggtTTTT gagatgagag tgaaaataag caggctgaga 2520
 gcagaaagaa agaaagttct gcagatagaa gttaggatat taccacttcg gcccagccc 2580
 agccagtaaa tgTTtagaag catagtagta attagcaggt aggagtTgtg gggaggaaag 2640
 gaaactgaca tgatgggaag caggaccagc tacaaaatct tcaggaccag ctcagaatga 2700
 aaatgccggg gctcgtgtta aatcttagga tttcaacatg gtgacagcag agcactaaac 2760
 caagcagggg gcccttctag caggaggccc catggggacc taggaaggag gtcacatcca 2820
 tacaaatgta aagaaatgtc agagtaaatt tcctccattg tccaggagat tcggaatagg 2880
 ttctcctaag actgatattt cttcatttta atagagttgc tcagaaatga aaaacaatca 2940
 atgggaag 2948

<210> 1632

<211> 3055

<212> DNA

<213> Homo sapiens

<400> 1632

tttctcactt ccattacctc atcacccatt ctccacatta ctattggatt cgtattttcca	60
aacactgctt tgactgtagt gtttgatgag aaacctacta tactgggtta ttcgttggat	120
cagaaacccc ggggatgccc agtgcataatt aaaataacac acaggctcct tattctgtca	180
tccaaggccc cacaggcttg gagcccaacc tccttctagt ctcatctgcg actgggacct	240
ctgggacaca ccacctca tcttcacctt aaccagatct actttcatgg cttcagctca	300
cctggaccgc attttgctgg tatectgccc actccctgag tcccagctca tgcaggacct	360
ctcccagctca agtgaaacaa aacaaacgac agtgaccacg tcctcgctta tggctcataa	420
cactttaatt gtgctccttt ataagagtgc atatgtgtac aagagtgcaa atgtgcacct	480
ttcccctatg ttgttatgtg tgtacctacc cccttcttca cttgtaagtt tcttgagggc	540
agggactggg ttttacaat ctttgccgcc accaccagt atgactgaag tatttgcaca	600
caatagaata gccacttgat caatgtctgg aggagcagat gggacaactg cagaataacc	660
caggagggtt ggctcctctg gcaatactaa ggatgctccc tttaactcca gtgtgtcaga	720
gacttaaggc ctagtagggg ttttgtactg ggcagtctca acacagtga ttcaatggta	780
ttgaaaagga ggcaatttta atcttgagga gtgcaaaaat actacgtaat gagttttaat	840
tcgatgcaag aaaccacct ttaagtatag ggcagtaa ataatgccttt ctaacaagga	900
gggtgtgat tttgtgtaata caacagtgt aagcaacagg tgtattactg caccagaggt	960
gacacatgcc tagtggccag ctttgcctgc ctccatagtc agaattcaag ctccctcagg	1020
caaggcaaac tcagggtgaa ggccaggggc gtacttttca accagcacct cctctgtggg	1080
acatgacaca ctgctgcctg gctactcaga catagactga gaatacggtc agttttttca	1140
agtttggtc caaggagat ttctggctgt agttaccact agatgtccct gtcttatgtc	1200
tactactccg agtggtatgt ttaaatacaca gacaactaca gactttcagc tatcaaaaat	1260

aaaaccactg agggagagggc ctttctaagt acaaccttct gacaatgcta atgttattca 1320
aaaatcctta cttttaaggt tgtttaagcc tatcatttct tttaaaattc tagtgaagga 1380
ataattgaaa acggaaatta ctatggaagt ttatacgaaa gggcttatag ctgtagtaaa 1440
actatattca tctttttcct acatgaaagt atgtcaacca gcctggccaa catggtgaaa 1500
ccccatctct actaaaaata gaaaaattag ccgggcatcg tggcgtgcac ccgtaatccc 1560
agctactcgg gagactgagg caggagaatt gcttgaacct gggaggcgga ggttgcagta 1620
agccgagatc gtgtcactgc actccagcct gggcaacaag agtgaaactc catttcaaaa 1680
caaaaaaaaa atgttatgtc aaacatatct ggaaactact tagatgtaag tatattgtag 1740
agaactatgt cctttccaaa ggactgggaa aagaccaaag tctggcgcac agtgagctga 1800
gtgattgaca gagggtcaagc tgcctggaaa taaaagcagt cagggatgga gatggctgaa 1860
atgtacatta aggaactttg aaaaattcta cctgtttttt tgtttgtttg tttgtttgtt 1920
ttgagatgga gtctcgctct tgtcgcccag gctggagtgc gatcccagta gctgggggta 1980
cagctgcgca ccaccacgcc cggctaattt ttgtattttt aatagagaca gggttttgcc 2040
atgttggcca ggctggtctt gaacacctgg ccccagggtga tccaccacc tcggcctccc 2100
aaagtgctgg gattataggc attagccact gcgcccggcc cccacctgtt ttttaagtgt 2160
atgtgtgcac atgtgcttct gctttaaaaa aaaaaatttt tttttaaggc tgcgtgcagt 2220
ggttcacgcc tgtaatccca atgctgtaat cccaaggctg aggcaggagg atttcttgag 2280
cccaggagtt caagaccaac ctgggcaaga tggtagggcc ctgtctctat aaaagtttaa 2340
aaattagctg ggtgtagtgg catgtgccta tagtctgagc tactcaggag gctgaggctg 2400
cagtcagcta tgatcatgcc actgcactcc agcctgggcc tacagagcaa gacccctct 2460
ctcaaaaaaa attgttttta atcaaaataa attgggtgtt ggagacctcc ttgggccctc 2520
gcatccctgg ctgtaaacc cagggactcg ccgctttctt ttccctggcc ccttggagtc 2580
ctccctccag gcctgcctaa agtgtgggcc aagggtgtcc cagctgtgtc cttttttgc 2640
catctgagac tgtacatagt tctttcaaat ttgagaggct taccgttgag tcaccattca 2700
taagtgatag ataagacagc ctatccaaca atgaatgaga aaagaattac aaaatttaca 2760
ccaaagtcag ccaggcgcggt tggttcatgc ctgtaatcct agcactttgg gaggccgaga 2820
tgggcagatc acttgaggtc aggagttcga gaccagcctg gccggcacag tgaatcctg 2880
tctctactaa aaaaagtgc aagattggct gggcctgggtg gcgggcgcct gtagtcccaa 2940
tttgggaggc gaagcagaag aatcacttgg gcctgggagg cggagattgc agtgagccaa 3000

aatcatgccca ctgcactcca gcctgggcag cagagcagga cttcgtctca aaatt 3055

<210> 1633

<211> 3190

<212> DNA

<213> Homo sapiens

<400> 1633

aagagtaaga gggctgtccg ggactacctc ttccgagtga acgaggccac agctgtcctg 60
tacgcccgcc acgtgcttgc atccctgctc gccgagtggc ctagccacgt gccagtgagc 120
gaggacatcc tggagctcag tggccctgcc catatgacct acattttgga tatgttcatg 180
cagctggaag aaaagcatga gtgggagaag gtagttatgc agactgagct tgtgtcacc 240
caccaggttc ttctctgcc ccacaggctt cctccagtga gtgcttcctg gagcgaggct 300
acctgtgtgg ctgtgcagct ccctgacagg tgtgaatgca gcaaaggtag ggtcactgta 360
tcctctccca aggattgggc tagtgaggaa ctcaggggcc ctgagcgca tttccagctg 420
aaccagaaag ctttgtcgcc atcttccag tttccaagt cagaaatctt gaggcacatt 480
cggtagctcc tttttgatcc tgctccctcac ccacctcac acacacacac gcagtccatg 540
aggaagtcca tttggcctct cagccttgct ttgtccatct gagaacacca ccagacctcg 600
aggtcttttc ccggccttgc agccctgcag gtgctggcag gcttgctcta gcatatctat 660
ctttcggaag ggacagaggg agccaccctg cctctactag gcccttgcat aggcggtgcc 720
tcccacagtt cttgccacct agagctccca accctgcacc tcactccagg catcgattac 780
attgtgtggt cattatttat ccataggcca atccacctgc ttggctgggg actccttcaa 840
ggaccaggac cctttatgat tggttcagtt agttctttca gaccacctct aagtagcatc 900
attctgaaag gactgcagtg tcctgattga caccaagagc ctgatcaagt gagaggtggc 960
tggtggagtt ggttttgggt ggtggagtca cagaggctcg tcctaggtct aagatgatgc 1020
cagcaccttt ggggtggagct tgggttgaag taaactgtcc cttcttctg atgccacttg 1080
caggccctga ccttatctgt ctgcttccca ccagatcctg cagaaagtgc tccagggctg 1140
ccgagaggac atgctgggga ccatggccct ggctgcatgc cagttcatgg aggagccagg 1200

aatggagggtg caagtgaggg agtcgaaaca cccgtataac aacaacacca acttcgagga 1260
taaagttcac attcctggtg ccatctacct ctcaatcaaa ttcgactctc agtgcaacac 1320
agaggagggc tgtgacgagt tagccatgtc cagcagcagt gacttccagc aagaccgaca 1380
cagcttcagc gggctctcagc agaagtggaa agattttgaa cttccaggag acactctgta 1440
ttaccgcttc acctccgaca tgagcaacac cgagtggggc tacagattca ccgtgacggc 1500
cggacacctg gggcgggttc agacaggatt cgagattttg aagcagatgt tgtcagaaga 1560
aagggtcgtg cctcatctcc catttgcaaa aatttgaggaa tggctggtgg gcgtggcctg 1620
tcgccagact ggccatcaac gattaaaagc catccactta cttctgagga ttgtgcgatg 1680
ctgcgccac agtgacctgt gtgaccttgc gctgttgaag cccctgtggc agctctttac 1740
ccacatggag tacggcctgt ttgaggacgt gacgcagccc ggcacacctc ttcccctgca 1800
tcgtgccctc actgagctct tcttcgtcac cgagaaccgt gcccagggtga ggcctgaggt 1860
ctgggcaggg agcccgggtgc ctccatgtgc gtttgcctcc tctgctacc agggcagaag 1920
ctgctgcctc atccgagcct gagtggccag ggtctcgaca ggccacacag gacaggcatg 1980
gctgagagtc tgaggctctc gcctctccca ggcctgggaa accctcaggt cagctctgag 2040
attgcttatt ttgtcaggcc tagagccaat gggggagaaa ctgcccggga tcagcccttg 2100
acaacagtga gttttgaaa ataaaacgat gggttatttc tgcttccttc tcttttttc 2160
ctccccctcag cacaatagac tgattgaatg tgggagctga aagggccttt cagagttctt 2220
tagcttcct ctcctttcac acatgaggaa actggcttga ggaggggtcc cggcctggtc 2280
acccaagggc aggtggaggc aaaggtgacc ccggcaccgg gcacctggct cccgccaggg 2340
ttctgagcaa ggcagtgcc cgcggtgctg ggcggcgtga gtagcgtccg cccatgagag 2400
gcttctgctt tcgcaagcag gtgtcccagg tggctctggga gagctgcact gcgcatctgg 2460
cgctgtcact cacagcccct gctctctctc tgcaggagct tggcgtgctg caggattacc 2520
tgctggccct aaccacggac gaccaccttc tccgctgtgc ggcacaggta ctctctccac 2580
cccaacagag ctggccccc ggcctggggcg ccaccatctc accattgcca gggcagagaa 2640
ggtctgtaca ttgcgtctga gtaggacaga atccaccgg agcttacaca gagcttgttc 2700
cagttcagtc acttctctct ggtgctcaga gagcatgcac gagccccatt tatcagagtc 2760
attcactcta aactgtgggg tcagaagaat ttgtgtcttt aaaacaaaa caaccgatgc 2820
cttaaattta gtttggtgta ttcttgaagt ttccgtggag ttagatttca catattttta 2880
gatgtgagtt gcttctctgg tagcggaact cctcttctga cagctgtttg gtctcaggac 2940

gcttcacact tttcactgac tgaggagctc agaaagcttt tggatatgtc tattatgcat 3000
atatccatat gtgccattag aaacgagatt ttcaatttaa aaattaagca aaagtgtaaa 3060
cctttatcaa tttatTTTTT taaagtagtg aaccatttcc atgttaacat gaataacacg 3120
tcttgtgaaa aacgactcta acttttcaaa acaaagtaat tactgagtgc tctgggacaa 3180
ataggtgacc 3190

<210> 1634

<211> 3924

<212> DNA

<213> Homo sapiens

<400> 1634

aaagagcccc ctccgccgag cgccgggcca cggcaggaag cccctccgct tggccagaat 60
ggagcagccg aaggagattg attggacagt catcatcctg acctgccagt acaaggacag 120
tgtccaggtc tttcagagag aactggaagt gcggcagaag cgggagcaga tccctgctgg 180
gacgctgtta ctggccgtgg aggaccaga gaagcgtgtg ggcagcggag gagccaccct 240
caacgccctg ctggtggctg ctgaacacct gagtgcccg gcaggcttca cttggatttg 300
tgttggagtc tctctctgga ttcgagggtg ccatcctcca gggcgtctgc ctgaggcctc 360
tgttcacagg gctttccac tcctgcaggt ggtcacatcc gatgtcctgc actcggcctg 420
gatcctcatt ctgcacatgg gtcgagactt cccctttgat gactgtggca gggctttcac 480
ctgcctcccc gtggagaacc ccgaggcccc cgtggaagcc ttggtctgca acctggactg 540
cctgctggac atcatgacct atcggctggg cccgggctcc ccgccaggcg tgtgggtctg 600
cagcaccgac atgctgctgt ctgttctgc aaatcctggg atcagctggg acagcttccg 660
gggagccaga gtgatcgccc tcccaggag cccggcctac gtcagaatc atggcgtcta 720
cctaactgac ccccagggcc ttgttttggg catttactac cagggcactg aggagagat 780
tcagcgggtg gtcaggcctg atgggcgggt gccactggtc tctggggttg tcttcttctc 840
tgtggagact gccagcgccc tcctagccac ccacgtgagc ccgccctgg atgcctgcac 900
ctacctaggc ttggactccg gagccccgcc tgtccagctg tctctgtttt ttgacattct 960

ccactgcatg gctgagaacg tgaccaggga ggacttcctg gtggggaggc cccagagtt 1020
ggggcaaggc gatgcagatg tagcgggtta tctgcagagc gcccgggccc agctgtggag 1080
ggagcttcgc gatcagcccc ttaccatggc ctatgtctcc agcggcagct acagctacat 1140
gacctcctca gccagtgagt tctgtctcag cctcacactc cccggggctc ctggggccca 1200
gattgtgcac tcccagggtg aggagcagca gcttctggcg gccgggagct ctgtggtcag 1260
ctgcctgctg gagggccctg tccagctggg tctggggagc gtcctgcagc actgccacct 1320
gcagggcccc attcacatag gcgctggctg cttggtgact ggcctggata cagcccactc 1380
caaggccctg catggccggg agctgcgtga ccttgtctcag caggacacc acacgcggct 1440
acacggctcc ccgggccacg ccttcacct cgttggccgt ctggacagct gggagagaca 1500
gggggcaggc acatatctca acgtgccctg gagtgaattc ttcaagagga caggtgttcg 1560
agcctgggac ctgtgggacc ccgagacgt gcccgcagag tactgccttc ccagcggccg 1620
cctctttcct gtgtccacc cctcgaggga gctgggaccc caggacctgc tgtggatgct 1680
ggaccaccag gaggatgggg gcgaggccct gcgagcctgg cgggcctcct ggcgcctgtc 1740
ctgggagcag ctgcagccgt gcctggatcg ggctgccacg ctggccttc gccgggacct 1800
gttcttccgc caggccctgc ataaggcgcg gcacgtgctg gaggcccggc aggacctcag 1860
cctgcgcccg ctgatctggg ctgtgtccg cgagggtgc cccgggcccc tgctggccac 1920
gctggaccag gttgcagctg gggcaggaga ccctggtgtg gcggcacggg cactggcctg 1980
tgtggcggac gtcctgggct gcatggcaga gggccgtggg ggcttgcgga gcgggccagc 2040
tgccaaccct gagtggatgc ggcccttctc atacctggag tgtggagacc tggcagcggg 2100
cgtggaggcg cttgcccagg agagggacaa gtggctaagc aggccagcct tgctggtgcg 2160
agcggcccg cactatgagg gggctggtca gatcctgatc cgccaggctg tgatgtcagc 2220
ccagcacttt gtctccacag agcagggtga actgccggga cctgggcagt ggggtggtggc 2280
tgagtggcg gccgtgtgg atttctctgg gggctggagt gacacgccac cccttgcta 2340
tgagcttggc ggggctgtgc tgggcctggc tgtgcgagt gacggccgcc ggccatcgg 2400
agccagggca cgccgcctcc cggagcctga gctgtggctg gcggtggggc ctcggcagga 2460
tgagatgact gtgaagatag tgtgccgtg cctggctgac ctgcgggact actgccagcc 2520
tcatgcccc ggggccctgc tgaaggcggc cttcatctgt gcagggatcg tgcatgtcca 2580
ctcggaactc cagctgagca ccagcagcat cctggcaggc actgccctgg ctgccttgca 2640
gcgagccgca ggccgggtgg tgggcacgga agccctgatc cacgcagtgc tgcacctgga 2700

gcagggtgctc accactggag gtggctggca ggaccaagta ggtggcctaa tgcctggcat 2760
caagggtgggg cgctcccggg ctcagctgcc actgaagggtg gaggtagaag aggtcacgggt 2820
gcctgagggc tttgtccaga agctcaatga ccacctgctc ttggtgtaca ctggcaagac 2880
ccgcctggct cggaacctgc tgcaggatgt gctgaggagc tggatatgcc gacttcctgc 2940
tgtggtgcag aatgcccaca gcctggtacg gcaaactgag gagtgtgctg aaggcttccg 3000
ccaaggaagc ctgcctctgc tgggccagtg cctgacctcg tactgggagc agaagaagct 3060
catggctcca ggctgtgagc ccctgactgt gcggcgtatg atggatgtcc tggccccca 3120
cgtgcatggc cagagcctgg ctggggcagg cggtggaggc tttctctatc tgttgaccaa 3180
ggagccacag caaaaggagg ccttggaggc ggtgctggcc aagaccgagg gccttgggaa 3240
ttacagcatc cacctggttg aagtggacac tcagggcctg agcctgaagc tgctggggac 3300
cgaggcctca acctgttgcc ctttcccatg aagctggcctt ctctctgcaa caggagaaaa 3360
cctggagcta cagtgtcccc caccttcctt gccccatggg aacctccacc tcctactccc 3420
caccacctc tgcgaatctg ctcccaaagg aagctgacca gagcaagatc tgggcaagca 3480
gagagtgcct gggacaggac tgtgacctgg tggacagggg cctagatgta gcctctgttc 3540
ctcctggaca taggaaggtc ccaagcttag tatcccacgt ggcctttaca aatcctatgg 3600
ctggccttct cattccacaa gggccctgga aagggttgac agccagcctt ggcatatggc 3660
tgggagtccc ttagcaaggc caaccctgaa gaggcccttt gaggcattcc ctatggctta 3720
gagttgtaga cttacactca accctcatgt gagcgtggga gtgagggtgg cggtcccttg 3780
ccaagttggt agcagtgacc cagtgattca ctgccatccc aggccttaac tagcaaaact 3840
acggagcgtg ccaagtgacc tgggtgcctgt gggaagtggg ttctcaggac tggcattctt 3900
ggaataaatt cactctgtcc ttgc 3924

<210> 1635

<211> 3004

<212> DNA

<213> Homo sapiens

<400> 1635

cttgtgcctt agcctcccga gtagctggaa ctacagacat gcgccatgat gtccatctaa 60
ttttcatata tatatatatg tttttttttt ttaacagaca tgagggtttc accatgttgg 120
ccaggctggg ctcgaacttc tgacctcagg tgatccaccc agctcggcca cccaaagtac 180
tgaggattaca ggtgtgagcc acacctgggt tccttattat tttcacttgt caaatgtgta 240
tgtacgtata tttgtgtgtg tatgtttttt aatgttgtac atacatactt tttttttttc 300
tttttcactc tgttgtccag gctggagtgc agtgggtgtga tctcagctta ctgcaacctc 360
tgccctcccag gttcaagcaa ttctcctgtc tcagcctcca gagtagctgg gattacaggt 420
gcacgccacc atgcctggct agttttttata ttttttagtag aggtgcgggt tcaacatatt 480
ggtcaggctg gtctcgaact cctgacctca ggtgatccac ccacctcagc ctcccaaagt 540
gcttggatta cagggtgtgag ccaccatgcc cagctgaaac atacattttt atgttgtagg 600
ttttcttcaa aggactccaa attctacaac agcaggaatc atataccag cacttaccat 660
agtctggctt atatgggcag gcaattattt atggatgaat gaatttctat tgccacagtg 720
caggttttaa ttcttttcaa caaagattat aagctcctta aaagcagaga ttgtctaatt 780
aaagtttgat cttccacagc tcagtaggca gtgtcttggc cacagaaggt aggtgttcta 840
taaataattta ttctatgaat cttgaattac taacctagac tctctttctc ttctaattca 900
catagcatat gtgattgatt aaagttcaca actcattgtt ggtaatgtca tataaattat 960
taggcttgtt gtccagtttt gaaaaatctc caataagcta tttatttatt tagacacagg 1020
atctctttct gttgcccagg ctggagtgcg gtgggtgagac cacggcttgc tgcctcctat 1080
atcctgatcc tctagcctca gcctcctgaa tagctgggac tacagacaca tatcaccaca 1140
cccagctaata taaaaaaact tttttttag aggttaaggctc tcaccatctt gccctggctg 1200
gtctcaaact tctggcctag gtgggaggat tgcttgaacc caggagttca agaccagcct 1260
ggacacatgg tgagacctgt ctctgcaaac aaaacaaaat cctacagaaa acccgacat 1320
ggtcgtgcgg gcctgtgggc ccagctactt gggagggtggg aggatcgtg gagcgcagtg 1380
gttggagggt gcggtgagct gtgggtcatgc agctccactc cagcctgggt gacagagtga 1440
aaccctgtct ctaaaaaaaaa aacaacactt ttttggctag gtattgatga atgctaaatc 1500
tttacaattt tacacatcca ataattggaa taattttcca cagattagct tcaggttccc 1560
aaaatttcaa ccctgcttct cttctactat tcacatagtt tttgatgcta gaacattgga 1620
cacattaaaa taacttcaag agttctggcc ctgcaccttt gttttgcaat gctgggtgga 1680
tcagcacaac gggcaattgg agtattcttg gaagccactg ggacagctgg caatatctta 1740

actacacatg gaagtgactg tgggttataa aaatatatcc cagtaaattc aaaccaaag 1800
tattcctaac tcaacttccc tttagctaaa ttcaaaaat gtttgcttgc cactccaaca 1860
ctagacaaag ggaaacatgg tggagggaag tctaagga ctaaagattg cagtttaaaa 1920
tacattactt ttataaattt tacagaagca tagggcagtg tgaacatatt actagggacc 1980
cttccaggga cttggaaagg gctagtgtaa atgagggcac ctgaagctga agcctcctta 2040
gcttcacagt aaatctgctt cagagtctac ggccatttta attactgagt aaactgtcaa 2100
ctttcagagt cagctctatg tagggctagt gaatatgttg attacagctc catttgagga 2160
agtttttttt ttttttttgg gatggagtct ggctctgtcc ccaggctgga gtgcagtggt 2220
gtgatctcag ctactgcaa cctctgcctc ctgggtccaa atgattctca tgcctccgcc 2280
tcctgagtgg ctgggattac aggtgtttgc caccatgccc agctaatttt tgcattttta 2340
gtagagacag ggtttcacca tgttggccgg gatggctctg atctcctgac cttgtgatcc 2400
gtctgccttg gcctcgcaaa gtgcagggat tacagggtgtg agccaccgca cgccctgcct 2460
ctttggtctt ataattactt tatactccta aaaagtattg aggactccaa aaagctttta 2520
tgtggatcat atttatcaac atttactata ttaggaatta aaacaaacat ataaaatatt 2580
tattcattta aaacaacaat aataaacctg ttacatgtta acataacata aataactttt 2640
tttttgagag agggctctggc catgttgccc aggctgattt cgaactcctg ggctcagggtg 2700
atcttcccgc ctcggcctcc caaagtgtg ggattacagg tgtgagccac ttcatttggc 2760
ctaataacat atttttaatg aaaaataact attttccaaa gcaaaataat ttagtgagaa 2820
gagtggcatt attttacatt tctgcaaate tcttcagtgt ctgggctaata agaagattct 2880
catatctgtg tctgcgttcc atctgtatca caggcatgta gtctctggaa gacctcactg 2940
tattgttatt agagtgaaaa aggcatgaag tcttagtatg aaaataaagt cttagtatga 3000
aaat 3004

<210> 1636

<211> 3440

<212> DNA

<213> Homo sapiens

<400> 1636

ctctacctag	aaaaatagta	aatcaaaaac	agtatcacat	ccctggaagg	attgcaggga	60
gtagtgccac	cattaaggac	ttgaaagatg	caggggtggt	gattcccacc	acatccccac	120
tcagctctcc	tgtttggcct	atgcagaagg	cagatggatc	ttggagaatg	acagtggatt	180
attgtaagcc	taaccaagtg	gtgactgcaa	ttgcagctgc	tataccagat	gtggtttcat	240
tgcttgagca	aattaataca	tctcctgata	cctggtatgc	agccattgac	ttggcaaatg	300
cccttttctc	cattcctgtc	cataaggtcc	accagaagca	atttgctttc	agcttcctgt	360
tctacctcag	gggtatatca	actctctggc	tttgtgtcat	aatgttattt	ggagagaact	420
tgattgcttt	tcacttccac	gagataccac	actgggccat	tacattgatg	acattatgct	480
gattggatcc	agtgtgcaag	aagtagaaaa	caaactggac	ttactggtga	gacatttgca	540
tgccagagaa	tggaaaaaaa	tctgactaaa	attcaggaac	cttccacctc	agtaaaattt	600
ctaggcgtcc	agtgggtgtg	ggcctgttga	gatattcctt	ctaaggtgaa	ggataaattg	660
ctgcatttgg	ctcctcctac	aaccaaggaa	gaggtacaac	acatggtggg	cctgttttga	720
ttttggaggc	agcacattcc	tcatttgggt	gttttacacc	agcccattta	tcgagtgatc	780
cgaaaggctg	ccagtttgag	tgggggtccag	aacaggagaa	ggctctgcaa	caggtccagg	840
ctgctgtgta	agctgctttg	ccacttgggc	catatgaccc	agcagatcca	attgtgctta	900
atgtatcggt	ggcagatagg	gatgctattt	ggagcctttg	gcaggccccc	ataagtgaat	960
cacagtggag	gcctctaaga	ttttggagca	aggccatgcc	atcttttgca	gataactact	1020
ctccttttga	gagacagctc	ttggcctgtt	actgggcttt	ggtggaaact	gaacgtttga	1080
ctatggatca	tcaagtcacc	atatgacctg	aactgcctat	catgaactgg	gtgctttctg	1140
acccatctag	ccataaagtg	ggatcatgcac	agcagcattc	catcatcaaa	tggaagtgg	1200
atatatgtga	tcgggcttga	gcagggtgaag	gcacaagtta	catgaggaag	tggctcaaat	1260
gcccattggtc	tccactcctg	ccaccctgcc	ttctcttccc	cagactgcac	caatggcctt	1320
ttggggagtt	ccctatgatc	agttgacgta	ggaagagaag	actagggctt	ggttcacaga	1380
tggttctgca	tgatatgcag	gcaccacctg	aaagtggaca	gctgcagtac	tacagcctct	1440
tcttaggaca	tccctgaagg	acagtgggtga	agggaaatct	tcccaatggg	cagaactttg	1500
agcattgcac	ctggttgtgc	actttgcatg	gaaggagaga	tggccaaatg	tatgattatg	1560
tactgattca	tgggctgtag	ccagtggttt	ggctggatgg	tcagggactt	ggaagaagca	1620
tgattggaaa	attggtgaca	aagaaaattg	gggaagagat	atgtggatgg	acctgtctgg	1680

tcaaaaactg tgaagatatt tgtatcccat gtgagtgtct actaacgggt gacctcagca 1740
atgctttctgc caagactatc atccatggac tcatggaata ccttatccac catcatggta 1800
ttccacacag cattgcctct gaccaaggca ctacttttac agctaaagaa gtgcagcagt 1860
gagctcatgc tcatggaatt cactgggtctt accatgttcc ccatcatcct gaagtagctg 1920
gattgataga ataatggaat ggccttttga aggcataatt acaacgcaa ttaggtgaca 1980
acactttaca gggctgacgc aaagtcttcc agaaggccgt gtatgtctg aatcagtgtc 2040
caatatatgg tactgtttct cccatatcca ggattcacag gtccaggaat caaggggtgg 2100
aagtggaaat ggcaccattc accctcacc ctagtgaccc actagcaaaa ttttgcttcc 2160
ttttcctgtg acattacgtt ctgctggcct agagctgtta gttccagata gagatgttag 2220
ttccagaggg agaaatgtg ccaggagaca caacaacgat tccattaaac tggaagttaa 2280
gattgccagc tgtacccttt gggcacctcc cacctttaag tcaacagtct aaggagggag 2340
atacagtgtt ggctggggtg attgacctgg actatcaaga tgaaatcagc ctaatacttc 2400
acaacagaga taaggaagag tatgcatgga atagaggaga tccatagggt gtctgttagt 2460
attaccctgc cctgtggttc aggtcagcgg gaaactacaa cagcccactc caggcaggac 2520
tacaaatggc caagaccctt caataatgaa agtttgggtc actccatctg gaaaaaaacc 2580
catgacctgt tgaggtgtgt gctgaaggca aagggaatac agaatgggtg ggataaaaag 2640
gtagtcatca ataccagcta caaccacatg accagttgca gaaatgagga ctgtaattct 2700
caatgagtat ttcttctct ttttgttaaa aacatgcttg ttcatgtata cactgtgtta 2760
agaaaatgcc ttcattttcc tttttacttt atcatgagac ataagattta ttggcttcat 2820
atcaaccctt aagtattgtt aactttatgt aatagcattt gggttgggga ttgggtgtgtt 2880
ttcggttgta catagcatag ttgaattatg ttaggcataa ttatgacctt attattgtct 2940
ttatttgaaa attatatatg atctcaggaa atgtgtatga gttcaagttg acaaggagtg 3000
gatttgggat ggttgatact gagtgtcaac ttgattggat tgaagcatgc agagtaataa 3060
tcctgggtgt gtctgtgagc atgtttccaa aggagaataa catttgagtc agtgggctgg 3120
gaaaggcaga cccaccctta atctgggtga acaccctcta atcaactgtt tgcttggcca 3180
ggatataaag caggcaggaa aacgtgaaaa ggctagacag gcttagcctc ccagcctaca 3240
tctttctccc gtgctggatg ctctctgtcc tcaaacaatca gacttcaagt tcttcagctt 3300
tgggacttga actggcttcc ttgctcctca gttttagat ggcttattgt gggacctttg 3360
tgtgagttta atactcctta ataaactctc tttatatatg attgtgtgat ttaatgctcc 3420

ttaataaact ttttttatat

3440

<210> 1637

<211> 3132

<212> DNA

<213> Homo sapiens

<400> 1637

ctggagaacc	catggccggc	gtggaaaccg	ctgcgaggcg	gcgccacgac	ggaggctgag	60
gtcgccggca	gatatcatgg	cgteccagag	cggcagctcc	ctggggctcc	tggcctgggt	120
cttgcttctt	cagccatggc	tcgaagaggc	ccgggcaggc	agggtgggtg	cgcagggagg	180
cgtagcactg	ctcttccct	ccgcgtccc	ctcaggcca	ggcggccagg	accccgagc	240
gagcggatgg	gagccgccac	ctgtaggggc	tccaggatcc	ccagcggccc	cccagtccag	300
ggggaacgca	gtgcgccccg	cttcggtgtt	acttccctca	gcctgtggcc	agcggacttc	360
aaggataact	ggaggattgc	cggctccaga	caggaagtgg	ccctggcagg	tgagcctgca	420
gaccagcaac	agacacatct	gcggaggctc	ccttatcgcc	agacactggg	tactcactgc	480
cgtcactgc	atctctgggt	gagggttttg	ggctcagagc	ttgggccctg	atcaggctgt	540
gggacctgga	gccagtctgt	ccccctccct	gaacttcctc	ttcctcatct	gtaaaagggg	600
gtgacagccc	catagttttt	atccagtctg	ggtgagacct	gaggatttgc	atttctaaca	660
agtttctggg	tgttgccctc	gccgctgata	tggggactac	tggctaaagt	ggtcaggggt	720
cctggaggga	tgtggcttgg	agagagggag	gtagctgctg	gctggcatag	gaagatggta	780
ccaggcggga	agcacctcga	aggtgtggaa	gcagagtgtg	gaccctggag	gatcttcctg	840
cagccatctg	gaatacacag	tgaagctggg	agacacaaat	gtgcatcatc	gctccaaaac	900
agcacttgtg	gtcccagttc	gtgacgtcgt	tatccaccga	tattttacgt	ctcctggaat	960
aattgaaaat	gacattgccc	ttgccctgct	tgacttcctc	gtgaattact	ccacgcacat	1020
ccagcttgtg	tgcctccctg	aacaggctta	catggtgcaa	gctggtacga	actgctgggt	1080
gaccggatgg	ggcaaagtaa	atgaaacagg	tgagccatac	cgacccgagg	aggattccag	1140
aatgacccccg	gcaagcccag	aagcccggac	gtctcctgtg	cacccgaaat	tccccaaaat	1200

tccagaaact tctgtagctc cagggtctcc agcgaccgca gggcctccag gatcctgggt 1260
tacttcagca tctacagtgg gagaagcctt ggaatccgac ggaatctctg accttggaag 1320
gcagttttct cagggtattg tttctgggtgc tagatctgtc ctggcctgcg gggtaggtca 1380
aaggggacac agcctggctc agggaggttg agggtcagac cctgacctag atgatttgag 1440
agagaggata gataacccgc ctccgccctg ggcagcctgg tggggtgggtg ggaaggtagt 1500
ggcttcactt ccagtccctt ctctttactg agcccaccag cctgtggcca ccgtgtttca 1560
aggatgattg gaggattgcc agccccaac aagaagtggc cctggcaggt ggcctgcag 1620
accagcaaca tacaccactg cggaggctcc ctcatcgaca ggcgctgggt gctcactgcc 1680
gcccactgtg tctttagtaa tttggaatac aaggtgaagc tgggagacc tgacttgcatt 1740
gctggttcca aagaggcact ggtgatccca gtttgagaca tcatttttcc tagcaatttt 1800
gattttgcca ctttgacaag cgacattgcc ctgtctctgc tcgcctactc tgtgaattat 1860
tcctcacata tccagcctgc gtgcctcccc gaaaagcttt ttgaagtgga agctgggaca 1920
gagtgtctggg tgactggatg gggccaagtg tcagagagtg tttcaggacc aatgccactt 1980
gttcttcagg agactgagct aaacattatg cgtcatgaga aatgttgtga gatgtcaag 2040
aacaagaata tatccaagag taaaatggc acgaggggga ccgtctgtgg ctataatgac 2100
caagggaagg atgcctgtca ggttataaag aggacacaac caatccagtt tgtggtgagc 2160
cctgggtggc ggaggatttg gaaatgacct gccattggcc ctgggaggtg agcctccgga 2220
tggaaaatga gcacgtgtgt ggagggggccc tcattgacct cagctgggtg gtgactgcgg 2280
cccactgcat ccaaggcacc aaagagtact cagtgggtgt tggcacctcc aagctgcagc 2340
ccatgaactt cagcagggcc ctctgggtcc ctgtgaggga catcattatg caccccaagt 2400
actggggccg ggccttcac atgggtgacg ttgcccttgt ccacctcaa acacctgtca 2460
ccttcagtga gctccacagc caactccatg ctgacccag agctgcagga ggctgaggtg 2520
tttatcatgg acaacaagag gtgtgaccgg cattacaaga agtccttctt cccccagtt 2580
gtcccccttg tcctggggga catgatctgt gccaccaatt atggggaaaa cttgtgtat 2640
ggggattctg gagggccatt ggcttgtgaa gttgaggga gatggattct ggctgggggtg 2700
ttgtcctggg aaaaggcctg cgtgaaggca cagaatccag gtgtgtacac ccgcacacc 2760
aaatacacca aatggatcaa gaagcaaatg agcaatggag ccttcttagg tcctgtgcc 2820
tctgcctgcc tcctgttct gtgtggctg ctgcagcccc agatgggctc ctgacctccc 2880
taccttttcc tcctcctgcc ttgcctctgc tgaatggggc cagatggttt gaccaaggctc 2940

atgtgtccat cttcaaaaag agtcagggtg gggaagagta acccctggga gaatgggtct 3000
ggcttttgca tcccgtgag gagaagtgtg gtggatgact aggccttggg tgagcaggag 3060
aagggaagtg tggcctagaa ggattctgga atctgggacc aggagagcag ggattaaaca 3120
tgtgcaaact tg 3132

<210> 1638

<211> 2851

<212> DNA

<213> Homo sapiens

<400> 1638

aatcccaatc aagagccagc ccggtttctg caagcacaca ggagcagaag agaaaccagt 60
gaagacttca ccgctgcata tcaggccagc gacggctgct cggtagcggc gctgctctgc 120
caccaagaaa aaccccaaac cactgatcc cacaagagg ggagaaaaag gaagtcttca 180
tgctgaagaa ggagaaatac aaacgtgtat gtgccggttt gcctctggtc gttaccgtgg 240
aggcattcac acgcctgtcc atttggcatt attatgagcg atccccagac agaagaactt 300
aaggtcaagt ttacagaga taaccaagga catcttaaag gagacaggct gtgcgatcat 360
tggaagaggg aagctgtgga tcttgcattc atgcatttgg atgaagatga cactggaaac 420
tgcacgttgc aggttgaggt ggccaagtat caacggaatg ggaaatatga ggcttcagga 480
aggaagtgcg cgaaccacag gaaggctccg tctctacggc agaagcggcc acgccgcagc 540
ccatccaaac gccgcgacac gagtgagttg tcctcatcga acacatttca tcctgtggat 600
tttgaggatg gccagagaag accttcaagg agagtcaagt ttggaccaac tcggaggctc 660
attgtctttg acagacacc agctggtgaa cctgtgtcct ggaggaatgc aggagcagct 720
gctcattgta ttcaaacctt tgatgggtctc attccgtcac ccaaggctgg agtgcagtgg 780
tgtgatctca gctcactgca acctctgcct ccagctcga gcgattctct cacctcagcc 840
tccaagtac ctgggactgc agatgtgtgc caccacacct ggctaatttt tttttttttt 900
tatagggttg gggtttcgcc atgttgccca ggctggcctc aaactgctga actcaagcaa 960
tctgcccac ttagcctcca aaagtgtctg gattccaggt gggagccatc acgcctggct 1020

atttttaaaa agagtcttgc tctgtcgccc aggctggagt gcagtggcgc aatctcggct 1080
cactgcaagc tctgcttccc agcttcacgc cattctcctg cctcagcctc ccgggtggct 1140
gggactgcag gcgcccccca ccagaccggg ctaaataattt gtatttttgg tagagacggg 1200
gtttcactgt gttggccagg gtggtctcga tccgccacct cagcactttg ggaggcccaa 1260
ggtgggaaga ttacttgagg caaggggttt gagaccagcc tgggcaacat agtgaaactc 1320
tgtctcttta aaaaagaaag aaaagaaaag aaagaaagaa aagaaaatct cagtgaatga 1380
tggtcagaat agaattcaac ataacaagct cattattaaa atatttgatc tctactgtgta 1440
caattctgaa gacactcatt catgtacttc attaaatatt tctagtttgc taaaaataga 1500
attacccttc aaccagcaa tccattact gggtatctac caaaaggaaa aaaaaatca 1560
ttctatgaaa agatgcctgc acttgtatgt tcatcacaga actatttaca gtagcaaaga 1620
catggaatca acccaggtgc ccatcaacag tggactggat aaagaaagtg tggtacacgg 1680
acgccatgga atactatgca gccataaaaa aacatgaaat cctgtccttt gcagtaacgt 1740
ggatgcagct ggaggtcatt atcctaagtg aatcaacaca gaaacaaaac caaatcccc 1800
atgttctaac ttataagtgg gaactaaaca ttgggtacac aggggtgaaa agacgggatc 1860
aatagatgct gggaatcaa aagcgggaag gaaggaggga aaggaagtgt tgaaaaacta 1920
tctattggga actatggtca ctgtttgggt gacgggatca atagaagccc aaaccccagc 1980
gccacacaat attcccctga aacagtactg gccatgtgct ccttaaagct aaaattaaaa 2040
acaaacaaaa aacagaaaga aaaaagtatc ccaggtagc tatgttgtaa ttttatttca 2100
tgacagcacc atcttctctt tgccctgcgc tgggcctcct agtgtgctgc ttacgtgatg 2160
cccacgtgcc acagagttat tgcccgaagt gccagtgggc tgtgcagggg atgggctctt 2220
ccttccagat ggtctgcagc ctctgggacc acgcagccac catccccctt ctttcttctt 2280
cggatgcaat ttcaggagca aagctgatct gaggggcaag gactttaaat ccacagaagt 2340
gtaatgtgcc atgctaaagc cacaggggaa gaaaagaact cattagaaac tacacctgtt 2400
acataccatt cggttaaatg atttaagggg gaaaatggtg tgaaacaaac cttcaaaaaa 2460
tcatgaaaca accttaagt tacaggcaac tgaaagctaa acttcctat ggcttttagga 2520
cacgccttg cataagagcc gtgaagaact tggggcagtt gcaatttcca agctctattt 2580
ttataactgc aattaaccta caatctttgc aactgattca gatgccaaac attatagttc 2640
tgcttgattg ggcaaattat ggtacattca cactatagat tattccagaa tgaggttatt 2700
ctagctataa tatataccat ggaagtttgt tcaagatatc tgttaaataa aaataacaaa 2760

caaatttttaa gctgtattta tgatatacca ttcattgtaa agagcagtaa atgtaataaa 2820
cctataataa aaattatgta tgtgagaaaa t 2851

<210> 1639

<211> 2804

<212> DNA

<213> Homo sapiens

<400> 1639

aatgaggggg ttagtcatat gggctttggg cataaaattt ggggtgggtgg ctaagggacc 60
ttcatcaacc tagcaggaga gcaaagtgat catgttaaga catctcttct gaagtagctc 120
attgacactc ttcctcacc ttgggtggccg ctgcgtgcct gattgctaag tgcaccaccg 180
taacaataac agtctataat ggtgatatta ttaactgcat cgtgcatatt attgatttac 240
tctttgttct gcatcattat cctttcacca atgagtttac tgcattatc tcacatactt 300
agtcaagcac caaattacaa cgaaagggca ggctcttata atggcatcta atggaacatt 360
gcataagcca tcactactgc ctctattat gagccacctc cagccaatga gctttctgcc 420
ttagtggaat gtgcacagag caattatgaa gtgcaaggga catggccatt ctaaatttta 480
cccaggaaat taccatgctg catgttcacc acctgccccaa gtctcagagc gcagctagag 540
actcagatgc tgtcactatg agcctggggg gcacagggac aggagttgag cctcttgcta 600
catacagtct cttactaga agccagtggg ttatctcca cagtcagtcc ctggcttttt 660
gtcttggtgc tgactcttg atcaaagtct cactctgac tgggcattat gtggcacata 720
taagtggcca tgacattgcc tggtgccaaa gtcagattgg ccaggagccc cgagcggttg 780
gagggactgt cagtctcaac agttgtgggg ctcatctctt ccgggtgagc cactacttcc 840
agaaacagaa gtccaaacca ccctcaaaca aggcgagcaa ttccagctc atcccttccc 900
agcatctccc catcttgagg taaattcctt tagctctcct ggaaatcccg ggcaccctaa 960
ggaagcagcc ctctggggac gcacagccag ctggcatgat cttccattcc ataggcatcc 1020
cagccccatt tagccctgag taatgctcac ttactgtaa gtgttacatg cccccattgt 1080
cggaggagtt atagtggaaa aatgcaaaat ttccttttta ctgcttatgg ccagcagaac 1140

ctataacgtg tcaggccgcg cattagccac cctgataaaa gtctgctttc ttacacacaa 1200
aatcatcggt tcagcaagat ttgttatctc attacctgat aagctctatg tcataaacca 1260
agactcatac agtaaattctc cccggaggac gctttgtggg cagaaaggga gagatatgaa 1320
tctgcaaggg acttgataat gcagcattta agcacaagca taatgtcact tattgttaaa 1380
tgcataaaac cacttgcca aacagttggg cttttaatag gattttgtgc agcatcaggt 1440
gagaagccat atggcttttc tgtctaggag tctcagcacc tgctagcacc gctgctttgc 1500
ctcactgccc tctggggatg ggagctgggc ttttatggag gcggaggagg gagatgaatg 1560
cttcccctgc agctgcctgg cttctgctgt cttgccaggg ggtgggatgc agggctctgt 1620
cgtggtgcct ggcctgatct aactggcctc tctgttcag gcacattgtg gtctgcggac 1680
acatcactct ggagagtgtt tccaacttcc tgaaggactt tctgcacaag gaccgggatg 1740
acgtcaatgt ggagatcggt tttcttcaca acatctcccc caacctggag cttgaagctc 1800
tgttcaaacg acattttact caggtggaat tttatcaggg ttccgtctc aatccacatg 1860
atcttgcaag agtcaagagt cagcagatgc atgcctgatc cttgccaaca agtactgcgc 1920
tgacccggat gcggaggatg cctcgaatat catgagagta atctccataa agaactacca 1980
tccgaagata agaatcatca ctcaaagtct gcagtatcac aacaaggccc atctgctaaa 2040
catccccgagc tggaattgga aagaaggatga tgacgcaatc tgcctcgcag agttgaagtt 2100
gggcttcata gccagagct gcctggctca aggcctctcc accatgcttg ccaacctctt 2160
ctccatgagg tcattcataa agattgagga agacacatgg cagaaatact acttggaagg 2220
agtctcaaat gaaatgtaca cagaatatct ctccagtgcc ttcgtgggtc tgctcttccc 2280
tactgtttgt gagctgtgtt ttgtgaagct caagctccta atgatagcca ttgagtacaa 2340
gtctgccaac cgagagagcc gtatattaat taatcctgga aaccatctta agatccaaga 2400
aggtacttta ggatttttca tcgcaagtga tgccaaagaa gttaaaagac ctctcaact 2460
ctgtctccct ttggctgccc agaaaagggtg ctttcagagt gacaagcttg atatttttat 2520
ttgactgaga aacgacatac ttctgcccc tcaaataat atttgaccag actgtgggaa 2580
ttttggtgtt gtatttaact tccccaccaa gggcccaggg ctcatgccc acatgtcccc 2640
acgagtagca tcaaaggctg ttctcaaaaa tgaaagacga atgagcagac acagtgtgtc 2700
acatcagcaa ctttttccc agtttctttg taaatggaag tttatgaaaa ggagcactaa 2760
ctcaaatcac agaatcctgt gtttgaaata aatggtcttg caac 2804

<210> 1640

<211> 3567

<212> DNA

<213> Homo sapiens

<400> 1640

accacaatgg atcagccccc atttggccaa caggtgactc taccacaggt gggcctgaga	60
ggacccatcc cccatctcac cattctgccc cagcgccctg gatcctgcct ctaccacttc	120
ttccctgcgc agtcactagg gacggattct ggcagcagag ccgcgctgtc gtgccccagc	180
cagccaggct ctcttgggat ctgggctgga aggggctgcc gagaccatca gtccaatctt	240
tggtctacag gtggggaaac tgaggctcaa ggaaggtcag tggggggcca gaaggacct	300
catgtgtgag atctggaagc gggaattgga gcagcagttt cattctgctt cagctcagga	360
agcccctgca gcagcccagc ctggagaaac gaggaccag catggaaaga cccagcctc	420
aaggaggcag agcacagcca ggaagggaag cccagccca cctgggaaac ccacctggcc	480
cattgctggg cacaggatct cactggtggt ctcacatcca tccttttggg aatgagatca	540
ggactaggga ttcggcattg gtgaccagca ctcaggtgga ccgctcagct gactgagggtg	600
gagaaggaag gaggagcgtg gtgggaccct cgccctgccc tcccactct ggagcgtgc	660
ctctcagccc aaccaagtga cagagacgag acaaccacag gaatagcagc tgcggagctc	720
catggcctcc ctctgcccc tggtggtgag aaggagaaaa gcaagagcag gtgctgaaaa	780
cgaaaaggaa actagcagca gtcccagcta ccacaatgga tcagcccca tttggccaac	840
aggtgactct accccaggtg ggcctgagag gacccatccc ccatctcacc attctgcccc	900
agcgccctgg atcctgcctc taccattct tccctgcagc gtctgcggtt ccccaccgc	960
tgtgagccag gttccccctc caggctgctg ggctgggact gactcacttc ttcccaggct	1020
gtaaactctg ggactgctgt gcaaggcaga gtcactaggg acggactctg gcagcagagc	1080
tgcgctctcg tgccccagcc agccaggctc tcctgggtga gtagcaggga gaccctgga	1140
acttacgggg atagaaggag tgtgatgcca ggagccaggg gaggaatatg cctggcagag	1200
acgagggaga ggaggagaca catggagcca ttcattggatt tcacacagga tctgggctgg	1260
aaggggctgc cgagaccatc agtccaatct ttggtctaca ggttgggaaa ctgaggctca	1320

aggaaggctc tgcgtcctgc tttgtgtaag gagagagctg ggcagtgagg ccgaaagtcc 1380
ttcctgagct cacagtccaa gttgcaagga atcacatcat ttccaagtac ccatggcaga 1440
agagggagcc atcctcaagg tcaccaaaga cctaagagct gccgtctctg ccatectcca 1500
gggctatggg gatgggcagg ggccagtac ggacaccagt gccgagctgc acagactctg 1560
tggctgcctg gagctgctgc tgcagtttga ccagaaagag cagaagagct tcctggggcc 1620
tcggaaggat tactgggact ttctctgcac tgccttacga cggcagcggg gaaacatgga 1680
gccaatccac tttgtccgtt cccaggacaa gggaatggta tggaccccgg agccctctgc 1740
tctgcccaga acgccaagaa gacatcctgg actctctcta tgctctcaat ggggtggcct 1800
tcgagttgga cctccagcag ccagacctgg atggagcctg gcccatgttc tcagagtcac 1860
gctgctccag ttccaccaa acccaggga ggagaccag aaaaaacaaa gatgcccacaa 1920
agaagatccc agccgcatat ggagggcctg aaaatgtcca gattgaggac tcacacacca 1980
gtcaagccat ctgtctgcaa gatgcacca gtggacagca gctggcaggg cttcccaggt 2040
cccagcaaca aaggcatctt cttttctttt tggaaaagaa gggggaaagt tccaggaaac 2100
ataggtaccc ccagagcatg tgggagccag aagggaagga gcttcagcta gaccaggagg 2160
aaagagcccc atggattgag atcttcctgg ggaactcaac acccagcacc cagggacagg 2220
ggaagggggc tatgggcact cagaaggagg tgatagggat ggaggctgag gtcacagggg 2280
ttctgctggt tgcagagggt cagagaacaa cagaggggac tcacaaaaag gaagcagagt 2340
ggagtcacgt ccagaggctg ctgatgccta gcccagagg ggctgtagag ggagcagtat 2400
cagggagcag gcaggggtcg gggggctcta gcatcctggg ggagccctgg gtccttcagg 2460
gacacgcaac aaaggaagac tctaccgtgg agaateccaca agtgcaacaa gaagtgacct 2520
ttgtggccag aaggaggag caagccgagg tgtccctgca ggacgagatc aagagcctca 2580
gacttgggct ccggaaggct gaggagcagg cccagcgcca ggagcagctg ctgagggagc 2640
aggaggggga gctgcaggca cttcgggagc agctcagcag gtgtcaggaa gagagagccg 2700
agctgcaggc acagctggag cagaagcaac aggaggctga gaggagggat gccatgtacc 2760
aggaggagct tggagggcag cgggacttgg tccaggccat gaagaggcgg gtgttggaaac 2820
tgatccaaga gaaggaccgc ctgtggcaga ggctccagca tctctcttcc atggctcccg 2880
agtgtgtgtt ggctgttagc aagatctttg gccgattttc tcggcggtat ccatgcaggc 2940
tctgtggagg cctgctctgc catgcttgct ccatggatta caagaagaga gaccgctgct 3000
gcccaccctg cgcccaggga agagaagccc aggtcacctg accaagacca agaccagccc 3060

atgactggcc tcccacctgc ctgcccattc cactcaatcc actccctgcc cgtagctctt 3120
 cccagccctc ttgtttgtcc agtcctcatt ctagacactg aagatctaag gcaccagcac 3180
 ttctgtgggc agagtagggg gtggggagtg gttccagccc tgcaactacc acaacgagcc 3240
 aggtgacttt ggcgaagctc tcagtgtca gggcttcttc tctaatttta agagttgggc 3300
 cccatcctct ctaaagtccc tctgggctca gcaaattccat gactgtggat aagaccccag 3360
 cagccctgac atttctctc cactctccc actcaccag cagcgggtgcc caccttctct 3420
 gattcacgag aagtgaagcc tgcactatct tggactctcc agcagcttcc tgtctggagt 3480
 cagcttcagg gatctgtgtt tgtgttgctg tgtttctttt tatgtttatt gaagtactac 3540
 tgacatatga taaacatcac agagtgt 3567

<210> 1641

<211> 1655

<212> DNA

<213> Homo sapiens

<400> 1641

acataacaac cacattctc ctctgacgaa gcccctggga gctcagctca tcaccatgga 60
 ctggacctgg aggttctct ttgtggtggc agcagctaca ggtgtccagt cccaggtgca 120
 gctggtgcag tctggggctg aggtgaagaa gcctgggtcc tgggtgaaag tctcctgcca 180
 ggcttctgga gccaacttcg ccacgtctgc ttccacctgg gtgcgccagg cccctggaca 240
 aggccttgac tgggtgggaa cgatcatccc tctctttggc tcaccaaate acgcacagag 300
 gttggagggc agactcacac ttccgcggt caagtccacg accacagtct acatggagct 360
 gcgcagcctg acatctgagg acacggccgt ctattactgt gcgagaggga cccggacatt 420
 tcgaaatttt gacataggct catatcttga ttcttctgat gtctggggcc aagggaacaat 480
 ggtcaccgtc tctgcagcct ccaccaaggg cccatcggtc tccccctgg caccctctc 540
 caagagcacc tctgggggca cagcggccct gggctgcctg gtcaaggact acttccccga 600
 accggtgacg gtgtcgtgga actcaggcgc cctgaccagc ggcgtgcaca cttcccggc 660
 tgtcctacag tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcag 720

cttgggcacc cagacctaca tctgcaacgt gaatcacaag cccagcaaca ccaaggcgga 780
 caagaaagtt gagcccaaatt cttgtgacaa aactcacaca tgcccaccgt gccagcacc 840
 tgaactcctg gggggaccgt cagtcttctt cttcccccca aaaccaagg acaccctcat 900
 gatctcccgg acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga 960
 ggtcaagttc aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg 1020
 ggaggagcag tacaacagca cgtaccgtgt ggtcagcgtc ctcaccgtcc tgcaccagga 1080
 ctggctgaat ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat 1140
 cgagaaaacc atctccaaag ccaaagggca gccccgagaa ccacaggtgt acaccctgcc 1200
 cccatcccgg gatgagctga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt 1260
 ctatcccagc gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa 1320
 gaccacgcct cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt 1380
 ggacaagagc aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgagggtct 1440
 gcacaaccac tacacgcaga agagcctctc cctgtctccg ggtaaagtag tgcgacggcc 1500
 ggcaagcccc cgctccccgg gctctcgagg tcgcacgagg atgcttggca cgtaccccg 1560
 gtacatactt cccgggcgcc cagcatggaa ataaagcacc cagcgctgcc ctgggcccct 1620
 gcaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaag 1655

<210> 1642

<211> 2979

<212> DNA

<213> Homo sapiens

<400> 1642

agccgcagcc tctgcgcgtc gccctccacg gttaccccg cttctccgcc ctcttctctg 60
 cggcgctcga gggaccatgg ccgacctcgt cgtgagacag atcaagatca agaccggcgt 120
 ggtgaagcgg taaggagccg ggagcggcgc cctgcacctc ctcttcgtca cctcatggcg 180
 gcccgcgagg ctgagcggag cgcaggcccc aggaggcccc aggcgggctc cgaactccag 240
 gccgcacccg gggctccgca gttggctggg actggcaggg acccagcggg gcgcgctgac 300

gccccgagccc gccagcctcg cacgccgctt cccgtccctc tccgctcact ggccgctctg 360
atttgccgga agagtggcg gtggcccgtt ttctcggcgc ccgcggtggg aaggtggtgg 420
gccgcgccct gcgagggcgg gccgggccct gatcacgtgc ctctgtgtg cgcgcgccgg 480
cctctccttg ctgaacttgg cccggggaag cgggatccca gctgtgctct caaatgggct 540
tgaaagcagg ctctgaagtt taggggatg cggaggatct gggcctcgtc aaaaaagacc 600
gtagtggagc cgtgtgacct aacatggctg gcgtgactgg caggctttga gaactgggcc 660
tgaacttcta gcacactcag caaacttatg tggcctcact ttctccagtc agattccccg 720
aagctcgccc cagaggctgt gagatgctgt ttaaataact tgtgaaccag aagtatctga 780
gacaggtctt aatttggaaat gtttattttg ccaaggacgt gccatgaca cagcctcagg 840
aggctctgat gacatgtgcc caaggcggtt gggacacagc ttggtgtaat acgttttagg 900
gagacctcag atattagtca atgggtaagg tgtaccttgg ttccctccag aaaggcagga 960
caactagaag gatggggggc atccaggtca tagataagag acaaatggtt gcattctttt 1020
gagtctttga tcagcttttc acttaataca caatttacat gtgagagagg gatagaagaa 1080
tagtcactta tgccttagtc ggctaaatga atctgcgatt ttacatacac agtagggcag 1140
aggaagcagt cagttacgca ttgtctcag gtgggtagag gggtgacttt gagttctgtc 1200
ctttgtccca tacctgtgaa gataagctat caatttacat tgccagggtg aaatacaaca 1260
gaactgtttt agagtgaagg tcttgaggcc cacaaggaat ttccttgggg gcaaattgtc 1320
agggaggtat gtagcttttt tttttttttt ttttaatctt ttagctatc ttattcagga 1380
ataaaatgag aggagctttt gctcgatgca attcccagct tgacttttct ttttggtta 1440
gtgattttgg ggtcctgaga tttatttttc ctttcacaaa ctcatgggta gtgcagtcct 1500
gtaatttgct taaattcctg taaaccaaga aagtacctga gacaggtctc aatcagttta 1560
gaagtttatt ttgccaaggt taaggatatg cctgtgacag cctcaggaag tcctgatgac 1620
atgtgcccga ggtggtcagg ctacagcttg gttttataca ttttggggag acagaagaca 1680
tcaatcaata catgtacgat gtacattggt ttgatctgga aaggcaggac aacccaaagc 1740
gggctgggga cagttccaag ttataggagg ttttccaatt ggcagttcgt tgaaagagtt 1800
tatcttaaga cctggaatca atacagggga gtgtgtctgg gttggaataa aggggttgtg 1860
gagatcaagg ttcttattag gcagatgagg cctccaggta gcaggcttcg gagagaatag 1920
attgtaaagtg tttcttatca gacttaaaaa ggtcccagac tcctagttaa ttttctagtg 1980
gatcaggaaa aagacctgga cagggaagag ggttctctac agaatataga ttttcccctt 2040

aagagacatc tttgcagggc caattcaaaa tatgtaaaga aatatatttt agagtaaaat 2100
gcttttatttt ctttcagatc ccgctatctg tcctgtgatg ccatactaga gtaaagctgg 2160
aatttggtgt cttattgtta caaaaagcct taagatctgt tttaatgtta atgctgctca 2220
attgttcctg agttccaaag ggaggaatgt gtaatgagac atgtctgacc ccctcttccc 2280
atcatggcct gaattacttt agaatgccct tagttgagag gaggggtcca ttcagacggt 2340
tttggagctt agaattttgt ttttagtttg cattcctgag tgctggtaga cccttcagt 2400
ttcattagaa ctttattgtt cagaccaag aagagcaaac tttttgatga agtgttacaa 2460
gagaaaagat aaacagcctt ctgaagaagc aagttatttt gttgtagcaa tgtctactaa 2520
agaaaccaac tggcttcttc ctgttcgccc acctttcctt tgtttattga tatttccacc 2580
agaggaagga ccaggcaaaa gggagaataa attcactttt taagataatg cttctgagtt 2640
ttagcacagc atcccatttc ccgggaagct ttattgcaa ggcaataagg agaccatgtg 2700
agtaggagtt aaatgcacag ccatttgtga agtgagactg cttgggttca gatcttgact 2760
ctgcccttta ttctatgttg tggaatatat tacattgtgc tgtgcctctt ttaccttatt 2820
tgtaaaatag agcaagcacc caactcaagc agttgttgca agaactgcct gctatgctgt 2880
ttaatacagt atgtggcaaa tagcaagtgg gtagtaaatg ttaataatac tgtttggatt 2940
cccatTTTtac atatgagaaa ctgaggttta atgaagttt 2979

<210> 1643

<211> 3046

<212> DNA

<213> Homo sapiens

<400> 1643

gactcaaaag agggcagagc cctgcaaaga aggtcttatc agctgctgtt tgtgggtcta 60
agaagctgtg agaagtctgg ttctgggaat ggagaaagaa ggtagagata gagtcaattg 120
ctgctgctgc tggagcaaca ctgaaaagga ataagagaca ccaagaataa agttcttttt 180
actcctccta acttctgtc tccttctgt cacttccatt ggcacaacgc aacaggaagc 240
caaggatacc gcagcctggg aaatggattt cataaagggc aactccagca acagataaca 300

gagcagagaa gtgtttcctt ggggctggga accagtgaaa tctgatggca cactggagcg 360
tgtccgtgag cggaggaggg aagtgcaatg ggtgtgttca cctttccttg ctgcccatta 420
atgcagcatg ctcatgatgc cccagatgcc ccatgaatgt ggaattgtga gggacccgcc 480
agcatgggag ttcagagagg ctcaaagtga gtccaaggta agtcatattt tctatccaaa 540
ccaggatttg catcaaatga agaaagaagg caccaggatt ctaacagaca ccagggaag 600
ggacccccctc acatccttcc ttactcgtgt tgcttccttg cattggccaa ctatgcccatt 660
tgaaattgggt gtttaggagg aaaggggagg gcagggccca gatttcccgt tcctctcggt 720
ccccctcatt ccctgtgaga ggaaggtaaa gagtgcggat gaaacgtgca cgtaccaaga 780
agtgaaggga aaacaggtga gcttgtttcg tgcagcattt ccagtgtcct ggtaagaact 840
aaattcatgg acacatagga actgcaacat atgaactgtg aaatttgggt aattttatgt 900
aagagttaat tgctactata gccaaattta aaattctcat ggcacaacat aaacagtaaa 960
atccacgcta ataatttaaa gcttattttt tagttagaaa aacatgaaaa atacaaataa 1020
aaaacactac aaaatgagag aatctgctga aaaaaatgaa aacggcttat gctttagtcc 1080
ctttaataat acttttttcc tgcttttcaa gtaaggggtt cacagtttta ttttgcacca 1140
ggaactaaat tatacagttg gttctgccat tgggtttaca aaggtagcta cacaccttca 1200
agagctgcaa agataagaaa tgtttgctat tcatccctca aacatccctt cgagaagtca 1260
attctccatc atgacctcag ccctcagcct tctccagttc ctgagatcag ccttgagaaa 1320
tgtagaattg ggaccggcct gtcactggga ttagcaagtc atcattccta ccaataagta 1380
gggaccagaa ttgtggtagc gtgaattcca aggaggatca tcatatacag ttgtgcaggt 1440
tatgcactgc accacgcaa gcacaacatg aacattctta tccctggaat tatgcactca 1500
cacagctgta catactggcc ctggaagttg gctttcctga atggaccctt aggactggcc 1560
tgctcaccaa atcccttccc tccttcatgc caccttatct gaagttagga gactgggcct 1620
cagtttcctt gcacaacacg ctggttctat gctaggacta tattccatcc ttttcctta 1680
ggttgatcag acaggtccaa aagagcagag tttctactat gaatgaacta cttagaacca 1740
gcgtctaagg tcagcagaga ctagaatgca ctcttcatcc agtagcctcc ataacctggg 1800
tctgtcacca ccacccccat cagtacataa cctgggaagt ggatctcatc tccatgagac 1860
cttgaaacct ctgccttctg agcagtcctt gtccccgggc ttctccactg cagcttactc 1920
atcgtcaccc acaggagctg ttagctccag aatctttact aaaggcccg c atcctgaaca 1980
cagcctacta cacgaggctg cggctgagca ctcaggacaa tcgctcagga caaataaccc 2040

tcccatcctt gtgggattct 2100
 gacctcttgg ctctctcatc caacgggtta ccctccctt gactcctttg attttacttt 2160
 ttgtgggctc tcttctaact atgtgaactc agatccctct gtgagagtga gttgcacatc 2220
 tgattcacct gtgggggttgt taaagggtcca tgtgcctggc tctcacccta gactattcta 2280
 actcagagtg cccccaggg aaacaatgta aggttagcaat taaggacatt gactctggca 2340
 tcacaagttt gagtctatcc tgtctctgcc actcgtaatc tatgtgatct ttgggggatgc 2400
 tttccctttc tctgaatcag tttctttgtc tctaaaatgg gaatgagagt gttagtacat 2460
 accccccagg atgggcagaa aaattgaata agctaatagca tgcagaggat tcaaatcagg 2520
 cctggcacat ggcatgtgtt caataacaag ttaactgcat tgctattatt gttatccaaa 2580
 aagtgcaga ttttactttg ccctccgtgt ttggttctcg gtgcctgggt ttgcttactt 2640
 aagagtcctt ttaccttgggt ctggccaag caagaccagc cccgcccctg actcatgggt 2700
 ttgaacatct agatcagatc tagccactca tcaccaccct gggcacccat ggctttagtt 2760
 ttctactgcc tcctctccta ccagtgccag gcaaaccctt gcttgtgatt caaaacccaa 2820
 ctggaatgct tggctttttc ctaagtcttc ctcaatgttc ctctgtattc atgtgctcct 2880
 agaattcttt attcagcaca ttttatacta attactgggt acttgtctgg ctcttgctta 2940
 ggcacaaaac ctgcaattta actttcctct aacatgggac cttaacatga tgcatataat 3000
 aggtgttcaa taaatgatgt ttcttccaat aaatatctat ttcac 3046

<210> 1644

<211> 3114

<212> DNA

<213> Homo sapiens

<400> 1644

agttacgccg tcgggagtag gcagccgctt agcgactctc gcgttgcccc ctgggtgggg 60
 cgggtaggta ggtgggggtgt agagatgctg ggtgtgcggg cgcggccggc ctctgcggc 120
 gggagggggag ggtcagtga attggtctctg gcgcgggcgt cctccaccc tccccttctt 180
 tcgggggaggt cggtttacc gccgcctgct tgtcttcgac acctgattgg ctgtcgaagc 240

tgtgggaccg ggcccttgct actggctcga gtctcacatg agcgaaacca ctgcgcgggg 300
cgcggggggtg gcggggaggc gggcgttggt acggtcctcc ccgaggccga gcgccgcagt 360
gtctggcccc gcgcccctgc gcaacgtggc aggaagcgcg cgctggaggc gggggcgggc 420
tgccggccga gacttctgga tggcggcggc cgcggctccg ccccggttc ccaccgcctg 480
aagggcgaga caagcccgac ctgctacagg cactcgtggg ggtgggggag gagcgggggt 540
cgggtccggct ggtttgtggg tgggaggcgc ttgttctcca aaaaccggcg cgagctgcaa 600
tcctgaggga gctgcggtgg aggaggtgga gagaaggccg cacccttctg ggcaggggga 660
ggggagtgcc gcaatacctt tatgggagtt ctctgtgcc tcccgctctg taaggaccgc 720
cctgggcctg gaagaagccc tccctccttt cctcctcgcg tgatctcgtc atcgctcca 780
tgctgagtcg cttctcgatt atgggcggga ttcttttgcc taggcttaag gggctaactt 840
ggtccttggg cgttgcctg caggggagtg agcagctgta agatttgagg ggcgactccg 900
attagtttat cttccacgg actagagttg gtgtcgaggt tattgtagta aggggtgggt 960
agggaaatgg agcttagtca ttcacctggg gctgatttta tgcaacgaga ctgcggatta 1020
tcactaatca tttttggagc atttttctag agacagacat aaagcatgat cacctgagtt 1080
ttataccatt tgagaccctt gctgcaccac caaagtgtag catcaggtta aatcttaata 1140
gaaaaatttt agcttttgct tgagaaacca gtgttccct ccctcaccct ctctcccag 1200
gctctctacc cctttgcac cctaccaggc atcttagcaa ctctcactca tacttgatcc 1260
cattttccat ttgtgtact tgctcctcca gtattcagac atagcactag ctttctcct 1320
ctcttgatct tgggtagcct ggtgtctcgc gaaaccagac agattgggtc caccacaaat 1380
taaggcttga gctggggctt gactcttacc cagcagtgtt tttattcctc cctagttcac 1440
gttcttaaat gtttatcttg attttcattt taccctttt ccttagctgg gattctgtcc 1500
ctgaccgtct tcacagtcca ggtgatcttg actactgctt tacagagaat tggatctgag 1560
gttaggcaac atctcccttt ttcttctct aaatacctct catttctgtt cttaccagtt 1620
agtaactgat ctgagatgcc tgtgtgatag ctccaaatt gctgtctctg tctttagtgt 1680
tatcttttga tccatcttac atcttgtag gatgattgtc ctaaaggaag atagagcatg 1740
aaaatgacag atgaaactcc attactggct tgtactgtt acagcaagt gtctaaccgc 1800
cgggccgcag gggaccagg acagctttga atgcgacca acacaaattc gtaaactttc 1860
ttaagtttt aggagttttt tttgcggggt gttttttttg ttgttgtgt ctgttttttt 1920
ttttgctcat cagctgtcct ttatatgtgg cccaagacag ttcttgaggt gtggcccagg 1980

gaagccgaaa gattggacac ccctggttta caggatgaat tctgttctcg tgaatgtgat 2040
gcataaggtc cctggataga ctttcctcaa tttaacagct ttttcatttt tcactatttt 2100
ccacatacta cacacacaaa tatgacctct ctcctgaagt cacatggaat gaattgcagt 2160
tatccaaatc atagagacgt catatatctt tgtgggggtgg ttcttttttg aatgctaccc 2220
ttgctgcttt taatcctgca gattcaaagc tcactctccc ttgggtcatg ccitccatgg 2280
tctgttgctt tatgacccaa actgcccttt taaaaaagca gttttcttct gactcctgag 2340
cagtttgtac tgcgtgggtc atagtaattc tgggggttgt gtcattgctg atttaaatta 2400
ccttaactat tctgagcttt ttgaaggaat agtgtcttgt actcctgagc tcctagtata 2460
ctctgatgtc tagccgacct taagtaaagc gagtgagcga catgtaaagc tctttatggc 2520
ttgacatttt atgaatcttg agcattggaa aagtggctgg tatgactaaa gaactgaatt 2580
tttatttttt atctaatttg aattgcaact gtggacagtg tagctgtagc cccggacttg 2640
ttctgtggat tacagaatac gtggacattg atggttttct ctttttactg agcagtaagg 2700
aaataaaaagc tgaagctctc tggcccatta catttcattt aactgcttgt tttgttttat 2760
ttattatata tttagctgaa agctaagtc aacaaaccat ttttaaagat gtgcctgcct 2820
tggacaacag tgaaagcaag cgtaaatgag tttggatttc aaaaaaatg cataatgaat 2880
tttagggagg tgagattcca ttaaactgtt acaggagcta catagttaa tatatcagaa 2940
cttgaatgaa gaataggtct gtgtgataca aatgaacca gcctaaattt ctgtcctaca 3000
agttttcact tcctggaaac acttgattgg aggagctcta agcatcatat cttgagttat 3060
agaaaacaat caciaagtaa gttttatcct gaggaattat aataccaaca tttt 3114

<210> 1645

<211> 2621

<212> DNA

<213> Homo sapiens

<400> 1645

tagtttctac gatttgatgc tggtcactta catttctttg aacagattag gtagattctc 60
actggatacc ttctttgtct acagtagttt tttgttgttg ttgttgtttt ggagatggag 120

tctggctctg tctcccaagc tggagtgcag tggcgtgacc ccccggtca ctgcatcctc 180
cacctatcaa gttcaagtga ttctcctgcc tcagcctccc gagtagctgt gatttcaggc 240
acctgccacc acgcccagtt aatTTTTgta tttttagtag agacgggggtt ttgctatgtc 300
ggccaggctg gtctcagact cctgacatca agtgatccgc ccacctcggc ctccctaagt 360
gctgggattg caggcctgag tcaccgcgcc cgtccatttt gtttgtttct ttgtgttttt 420
gagacagtgt ctactctgt caccagaat ggaatgcagt ggtgtgatca tagctcactg 480
cagtctcgac ctctgggtt aaagcgatcc tccccctca gcctcctgag tagctgggac 540
tacaggcaag cgtcacctca cctggctaata ttttttact tttttattag aggcaaggcc 600
tccctgtgtt gccaggatg gtctcaaact cctgagctca agtgatcctc ccgccttggc 660
ctccagagt gaccacaga taatagtga aatcccttgc tcaagtatag agtttgtaca 720
cattgaatat ccctagtcca aaaatctgaa atacaaaaga ctctaaaatc caaagcttga 780
tttcagattt tccaattagg gatgctcaac cagtaaggat aaagtgcaaa tattccaaaa 840
tctgaaacac ttctggtccc aggcattttg gataaagaat aagctatatt agcaagtcatt 900
taacctcaag ggagtgggaa ggggaccaag tgggtgtgcaa tgtcaataaa tgaatttatt 960
ttctacattt tctgttctgt atacagtga gctgctgtat cagagctatc gctcatgtct 1020
agttttcagt tttttttttt tcagtctctt tcatataaat gatactgcag tgtcctgtca 1080
ccttcttggg gctaccatgt gaagaagaaa ttctgtcatt gggccacttt ccatttagta 1140
tgggaatttg ccttagacct ctctgaactg ctaagcattg cgaatggtac tgattcgtag 1200
cagtgagaaa gcttccaagt ggtggtctgt gtctacctca tgagctgtcg taacccttg 1260
tggtaggcaa agtaacaccc ccaccccaa gaggtttatg tcttcaatct ctaaaacctg 1320
ttacatgtta ccttacgtga caaaaagacc tttgcagatg tcatcaagga tttttttttt 1380
ttttccttga gatggagtct cgctctgtcg cccacgctgg agtacagtgg tttagtcttg 1440
gctcactgta acctctgcct ccaggttca agtggttctc ctgcctcagc ctccggagta 1500
gctgggacta cgggcacgcg tcaccacgcc tggctgattt ttgtgttttt ggtagagatg 1560
gggttttgcc gtgttgcca ggctggtctc gaacgcctga cctcaggtga tccacctgcc 1620
tcagcctccc gaagtgtctg gattacaggc atgagccacc gttcccggct ggttgttttt 1680
ttatttgttt gtttttgttt tttctttgag acggggagtc tctctctt actctgtcac 1740
tcaggctgga gtgcagtggc gcgatctcgg cacgctgcaa cctccacctc ctgggttcaa 1800
gtgatgatcc tgcctcagtc tccctagtag ctgggattac aagtgcattg caccacgccc 1860

ggctaagttt tgttggtgtt ttcattgtca ttgttggttt ctgagacagc gttttgctct 1920
attgcccagg ctggagtgc gtagcatgat cttggctcac tgcaacctct gtctcccggg 1980
tttaagcgat tctcctgcct cagcctcttg agtagctggg actacaagca cctgccacca 2040
tgcccggcta atttctgtat ttttagtaga gatggggttt caccatgttg gccgagctgg 2100
tctcaaaactc ctgacctcaa gtgatttgcc cgcctccacc tcagcctccc aaagtgtctg 2160
gattacaggt gtgagccact gtgcccctct ctggctaagt ttttatattt ttgtactttt 2220
agtacaatag ggtttcaccc tgtcattgtc gtccttggtt tctgagacgg ggtttttctc 2280
tgtcgcccag gctggagtgc agtaacgtga tctagacca ctgcaacctc cgtcttcttg 2340
gttcaagcga ttctcctgcc tcagcctctt gagtagctgg gactacaagc acctgccacc 2400
acgccggctg atttttgtat ttttagtgga gatgaggttt caccctgttg cccaggctgg 2460
tcgcgaactc ctgacctcag gtgatctgct gccctcagcc ttagagaata aacaactaca 2520
taaccaccaa gcaagcagct caagaaacag aataagataa gggcggtgag ttaccagttc 2580
cattcagtct gtgttggtcc tagtcagtac agtaagacgt g 2621

<210> 1646

<211> 3575

<212> DNA

<213> Homo sapiens

<400> 1646

tggttgagtc tcataatatt tagttcatgg agacgtcatt aagaccctgc tgaggagcaa 60
gtgagttttg ataacttttg atgatagccg ccatcttgca aggccaatgc caaaccttca 120
gagaaagaat tataacagct cctgctttaa ttaaacaatc catgtttctc cactgcattt 180
catcctggag taactgcgtg ttggagacaa acgagagcag ccagtgccaa aaacatgcat 240
ctcagtgcac ctcacggatg tacagacacg gcactcaaca tgcagaaatg cctgatcatc 300
cagttagcgc caagttccat ttcagaacag aaggagccag atgtgaagtg gacagcaggg 360
ctagagctgt ggtgaaaggt accaggagct ggaagtccta gaaattcaga tttctgggct 420
gggcaccgtg gctcacgcct gtaatcccag cactttggga ggctgaggtg gggggactgc 480

ttccaggagt ttgagaccag cctgggcagc aaagcaaaat tacagaaata caaattctgc 540
caactcccaa gcctccacgg tcgcctccct gataccacgg aggccttcct gacagcatgg 600
tcagccacac cctggaagtg ggtcagggct gggggaacaa tgggaggatg attgcaggtc 660
tgttgtagaa ttccttcaga agatgaggtt tgggggggac agtaaggaaa acacgactgt 720
ctgccataag ttcaagagat ttaccttttc aagcacagta tcaggcatgc ggtgttttct 780
aaataatcaa agtatcttct acattaaaaa taccaaaata aaccctgctt gtatcatttc 840
gggggaaagt tagattgaaa gttttttcaa cgacaggaaa tcattgcggg gcaaagtcca 900
caaggcccag gcgcaggcct catgtttctg ggggggactg ggtctccttg cagggtgcgtc 960
ccaatgcaag gaaagcgcgt ctgcggtcac agctcaacgc ggactccagt gccagccgag 1020
ggaaaggggt cttccctgca gagagccgca cccacctccc cctcaactgg ggccagcgaa 1080
actcagggtc actgctctgt gtggaatttg cctctgaaat cccctcacc tgactcaggc 1140
ctttgataaa aatttcattt ttcagaaagc aaagaggaga gattacagca gtgaccagcc 1200
cgtgggagga gaaggatctc attccttctg gtcctgggcc ccgtagctcc tgcctctgag 1260
agaacagaca gtgtgttcgg gtcccagcct cccgcaagtg ctcagcatct gttgggcttg 1320
ctgggaagtg ggtgcagggc tgagcccaaa acacacatgt aggcgttgct ggtaaaccctt 1380
gtcccactca cccaggtcc acttaggagc cccaagacct gctgcaggga gagaagtgtt 1440
tggaataggtt ggtgacacgt ctgtcataga acgggtcagg ctggatgttt tcctcctaag 1500
accaacactg gggcaggag ggagagacgc agctgcgccc tgaacaccac tcacgcagct 1560
cctggaaggc gctggggctc tggttaacttg ctacagggtga ttctctacgt ctatagcttg 1620
aggttagcct tgtatcacat tacgtttctca ttagaaacaa aatgaaaatg aaatatTTaa 1680
agcatgtacc agaacagaat taggcctgga aagcagcagt cttagctgac aaatgggttg 1740
tgctatttga ctctcacggg taagtctcct ctttcatagt aaaatctcac taaagaatct 1800
tccttgactt tgacaatttt tcagcgtcac aagcaagaaa ccaccacctg tgggccccag 1860
tgagagactg aacttacaaa gagacgatga ccacagcata tggaaaggaa gaaggagcca 1920
ccctctgcag gagccctgaa gcccgaagag caggaggcca ggcactcgcc ttaggacggg 1980
gccaggaggc caggcgcttg ctttaggatg gggccaggag gccaggcact tgccttagga 2040
cggggccagg aggccacaca gtgatccctg tagcagtggc cccatgcggc caagacttaa 2100
gatagcagac accttccccg atttggtgtct ctacttaaaa tgtaagatca gctggagaaa 2160
gcccagtgtg cgccccacc aagccacag gactcctgct cctgcagagc cgccccgcc 2220

ccatcaggcc caccgtgctg gtgctcaggg ggctgcatcc tgctgggagc acgattccgg 2280
gtgtttctcc aggcgctgag tccgtgcctc ctttttcggt cacacatctt atcatttgag 2340
ttagcatct acttataaac atcattttca aatctgaatc ctgcttcctc actacaataa 2400
aaaggagaga caaaaggaag ttgcgcctac aaccttccag aagccctgag gagccgcccc 2460
atgcctgacg ccacatccca caagctcccg aaatcgcgga tggctcagtg acattccaga 2520
tgctgtccca tcgctcagag tcccgagaca cagacatgga caccaagtcc atcctttgag 2580
gaaggcagac ttggcgggaa tgtggttttc ttcaaagggtg agggggtagg gggagctgcc 2640
agggccagc cggcaggggc aggaggggcg gggcttcggc ccagggccct gcacgggggt 2700
gaccatcagt gcccccatc actgtgacag tcctatcccc agtctgcaa atgccccctg 2760
gatggggcat cccatgagag ccgggccatg gagaggctgg aatgtgccag actctgaggc 2820
accagggggg tcagcctttc cctctggttg gtccccctgt gccacaccgc agcctgcgcc 2880
tgccagctt cccgtccctg cgagcacagc ctgcgcctgg ccagcttccc gtcctgctg 2940
cgacccatt actaggtcat cgtctcatgc cagagaactc gcaggaatcg catgcaatgt 3000
ttaacgagag gcagaatgtg ggcaccaggt gtgaagcagt ccccggtgt ggacgggaga 3060
ctccaggctg cgccaggcag ggcgccttcc cctggacctt gaagggcacc cgatgtcctg 3120
gggccgtgag gggcggggtg cttatccatg tgacaggact cttccagtag caacagggag 3180
ggcccagcaa aaccgcagt ttgtttcggg ccacgttcca acaagtgact cggcggcgtc 3240
tcccacctgc aactcagtc aggaggctgc agtctccgt ccagccccac agcctgaggg 3300
attcctgttg gttaccaga actgcctgcc acaggtgcca gggcaagaga tgtcactcaa 3360
ttttccagcc ccagtcctg tagacatcct ggggtgtcgg cacacatcgg ctcactcaca 3420
ctgacctct gagccggtga gaactccaca agaagagggc cagcgcctca caagatcaag 3480
gcggaacaac gcgtttgtgg gatgatgaag acctcataac agacgtgcca gtgggttgat 3540
tactgtgaaa ttctcaactg tggtttctgt aactt 3575

<210> 1647

<211> 2937

<212> DNA

<213> Homo sapiens

<400> 1647

atatacctccc ctgggctgaa ggcactcttg tcctccaagc ctcccctaca gcagtgttca 60
tgggcagctg gagcagggct gcctacccat tgctactccc aggagctcag gactggctcc 120
agaccctgg catctggagc agaagcaaca tcaaagcagg gattggccaa ctcccacccc 180
taatgcaaaa caggccaggc actgggagca ctcagaggcg tgacgaatct cagcctgtct 240
ccggctagtg ttccctggcc agtccgcttt gggccctgcc tcacaatgac gggctcatca 300
ttcagcctcg ctcatctgct catcatttca ggactgctct gttactcggc aggctgcttg 360
gcccttccca gcctggatca gaagaagcgt ggtggccaca aagcatgctg cctgctgacg 420
cctcctccac caccactgtt cccaccacca ttcttcagag gtggccgaag tccgcttctc 480
tccccagaca tgaagaatct catgctggaa ctggagacct cgcagtcccc gtgcatgcaa 540
ggctcgctag gctcccctgg gcctcccggc ccccagggtc caccggggct tcctggcaag 600
acaggaccaa agggagaaaa gggggagctt ggccgaccag gaaggaagg tagacctggc 660
cccccagggtg ttcttgcat gcctgggccc atcggttggc caggccctga aggaccagg 720
ggtgaaaaag gtgacctggg tatgatgggc ttgccagggt caagaggacc aatgggctcc 780
aagggtacc ctggatccag aggggaaaag ggatccagag gtgaaaagg tgacctgggt 840
cccaaaggag aaaagggttt cccaggattt cctggaatgt tggggcagaa aggtgaaatg 900
ggtccaaaag gtgaacctgg gatagcagga caccgaggac ccacaggaag accaggaaaa 960
cgaggcaagc agggacagaa aggggatagt ggagtatgg gccaccagg caagcctggg 1020
ccttctggtc aacctggccg tccggggccc ccaggcccc cacctgcagg acaacttata 1080
atgggacca aaggggaaag aggatttccc gggcctccag gaagatgtct ttgtggacct 1140
actatgaatg tgaataacct ttctacggg gaatctgtgt atgggccag tttcccgcga 1200
gttctgtga tttttgtggt caacaaccag gaggagcttg agaggctgaa caccctaac 1260
gccattgcct tccgcagaga ccagagatct ctgtacttca aggacagcct tggctggctc 1320
cccatccagc tgaccctttt ctaccctgtg gattacactg cagaccagca cggcacctgt 1380
ggggatgggc tcctgcagcc tggggaggag tgtgacgacg gtaacagcga tgtgggtgac 1440
gactgcatcc gctgtcaccg tgcctactgt ggagatggtc accggcatga ggggtgtggag 1500
gactgtgacg gctctgactt tggctacctg acatgcgaga cctatctccc tgggtcatat 1560
ggagacctgc aatgcacca gtactgtac atcgactcca cgcctgccc ctacttcacc 1620

tgagggccgt gaggagaagg tgggctgcgc cccacagaac tggcagcagc ttctccactg 1680
tcatcaaact ggccatgtcc tggccccgtc tccaccaacc tttgtgtgac aaaaacaagg 1740
acaaattcct gctactaaga catgctgtta actcagtctg actggaagaa tttaggacca 1800
ctgcatcctg tcttaatcca aggtactgga aaaccttcca catgccaac ctgagacctg 1860
ttccccatcg ctaccatttg gccaaacaac cggctacaat gctcttcctc ttctggaatg 1920
ttgctgaccc aggccgtgga cttggctgag cactgttaga cacacacaga cctgcaggct 1980
gttttagaat gttttgatct ctttggggaa tctggagtac aggccctcctc gccctgacc 2040
accgaaacgt gcaggcattc tcactcacac tgggcagccc gctgtcgggt ctctctaggc 2100
ctatgaacca caaagcaggg aagtgggcac gttctctcgg ggtggctcac agctttgaac 2160
ctgccaaagg acccctcgac tggccacagc ccagcccagc ctgacgtgga tgtggctgcc 2220
caggaaaaga cttactgtg aaaaagtact gagaaccac ctgaccagg cttgccccaa 2280
gcagaggcta gagaagaggc tcctcttctc agtgtttccc aaaggggcgg ctcttgtggt 2340
ttcaaaatct ctggcaccat cttgacctct tggctctctc tgcactttgc cccctgtctc 2400
aaaaatgtcc ctcatgtcca tttcctgtcc aggagactca tgaggactgt gtgacctgca 2460
caagcccaca cctgggcagg ctgttggtgt ctccttggtc cttaggcaga tactcccctg 2520
agtccccgat ctagggccag ctgcagaggg ctctctctag gcagagcggt cctggccaga 2580
gctctacctc ttgacctcct gctgacctct gacagcgctc cgtggcattt ctttcatgtc 2640
tgcatattgc atagccttgt ctcctgtgtg gcctgagctc ctcccttttc aataagatta 2700
ttagtcgtgc atgtctgtga gctgcctttc atcaccattt ttcctgagta gggcttagtt 2760
ttattctgga aagacatctc caaggtggac ccggtctccc acaggtgaca tcaacctgag 2820
ggtggcgtct ttagagacag gcacatgggc agccctgttc cttcgcctc tactgcgagg 2880
cctggggaga tgttggtttc atgctgcttc caccatcaca ctgggggttc tggatgg 2937

<210> 1648

<211> 3292

<212> DNA

<213> Homo sapiens

<400> 1648

gcacatttgc aacttccatc cagggcccca ttacattttg cctccattgt cacagcctcc 60
taactagcct ctttateccc agccttgctt ccctctagac cacaccccca caacatctgg 120
gtgatatcac aaagttatta cctttgagat aaagtctaca ctccttccta aggttttcaa 180
agccgatatg agccagcatc tgcttaaata atgcccactc tatecttctc ccatgactcc 240
accacacacc tgggtccatga tgcttcagaa acattgactg ctccctctt tgttctacct 300
taaacacgct tctcgtttct tctggtgaat gcctgctcat ttgacaggtc tcagatggat 360
cctcgttttc ctggagaagt ctttctgac tcccagagc tggatcagat gcctctcttt 420
gtgctccctt aatacgctgt atctgcccta ttgcagcaca catcacattg aattgcactg 480
gcctcttttc ttggctgtgt cttctccaaa ctggaacacc agggccacat ctgttttgtc 540
cgacataatg tctccagcat ctagcaacac taacgaaaac atctgttgaa tgaatggatga 600
atgattgaag cccttcatac cacaacatgc agtcttgagg cacagacagg ggtcttttct 660
gtattgtgct ctcagttgca acacagaaca tcaacaggta ctgggcagtg tcttctctat 720
agagcaaagg ggcccagtga taaggggatg acttctcct gccctataga ccagtctccc 780
aaactttctc gactgcatag ctttctctag ttcttttttt ccctcttctt ggcttctctc 840
agctttgcaa cttcaagtc aaattagcca agttgaattt tatatgagct tagttttatt 900
tttcacagtg gaagctctc atctcttcat caataataga catcactgta acccaaagct 960
ctgtggcttt tccaatagaa tcatgttaat aaatatctgg tgtagtttg ctgttgatag 1020
caacatttcc aactctttag tggtggccaa aaaaaaaaag aaaaagaaaa aaaaagaaaa 1080
agaaaaaaaa gaaaaagaaa ggagttggca aaagcagaga agagcaggca tggtttctag 1140
cctttctctc aaaatgtgaa cccttagtgc ccctgaacta gctggatgcc attctgggga 1200
tagagcaggt ttacagaag ctgtgttatt tataatttag gggttttctt taagaaaaag 1260
agtataaaac tatagatata tggcttgagc ttcttgaaag ttgcttgatg aagtgcagtg 1320
ggggcccttg aaaaccatcc ttcatcatt taatttgctt tccatctcta tcataatttt 1380
tataactgga gaaactgaat cctagagtaa tggagctgag catgagtcag cttgagaagc 1440
tctggttgcc cagccctccc tgctgcagga cctgcagttc gtcgtgaagc tacatggact 1500
cgaaacactc acaaaatccc cagctcccg tttcattcac aggccatgcc agaagggtaa 1560
aaacagaaag gtaaaaaata aatatttttc aatgaactca gcctctgtgt gggcaataag 1620
ctgcttggtt tggtaggaag aacgctgggc tgggagttga caggggcagt tgttgttcat 1680

tctattaagc acttaggaaa atagacgtgc tgatgctgat ttgaaacag attaatatg 1740
agccagataa caagtttcta ctccacatta ataggaaaaa aatggtggat tctgagctca 1800
gtggagctaa gaatttaaag aggtaaccag ttttgtaaga acagggaaga aaaagccact 1860
gcaccgctaa tctgtgtgac cgccacagcc ctttgggagc agaaggtcac tctcagaac 1920
ccctcccaat cactgtgacc accacagccc ttcgggagca gaaggccact tctcagaact 1980
cctcccaatc actgtgacca ctgcagccat gcaggggagc aaggccactt ctcagaaccc 2040
ctcccaatca ctgtgatcac cacagctctg tgggagtaga aggtcacttc tcagaacccc 2100
tcccaatcac tgtgaccact gcagccctgc gggagcagaa ggccacttct cagaacccca 2160
cttctcagaa cccctccca gcctcgaagt caaatctgat gccatccca ggtcttatac 2220
ctggattgcc tcttcatgcc ttacctttt gaaggcatct ttgagacatc ttgatcagtc 2280
tgtgcctggt tgtgacttca gttttgcctc tagactctct ttcacggatc agccttgccc 2340
aaccgagacc cctgagtcca ttctgcaaga tcccacttgt tcaggataga ggttgagacc 2400
ttcatttaag gaaagtccta ccgatgataa gactccagtt tctaaccttg tcatcaaggt 2460
tgtcatcctg caagcaggaa tgataatgtg tgggggtggg ggattgtcac atgatttaaa 2520
actccgggtc cagctacgtg ccttggaggc cattcttgct cccgtttcct aacttacaaa 2580
attaggggct tcattgacta atgagtggta tatacacacc atggaatact acttagccat 2640
taaaaggaat gaagtaatgt cttttgcagc aacttggagg aagctggagg ccattagtct 2700
tttttttttt ttgagatgga gtctcgtctc gtcgccagc ctggagtgc gtggtgcaat 2760
ctcagctcac tgcaagctcc acctcctggg ttcacgcat tctcctgcct cagcctcccg 2820
agttgccggg gctgcaggtg cccgccacca tgcttggtg attttttgta tttttagtag 2880
ggacgggttt tcaccgtgtt ggccaggatg gtctcgatct cctggcctcg ttatccgct 2940
gcctcggcct cccaaggtgc tgggattgcg ggcatcagcc accgcgccg gcctggaggc 3000
ctttattcta agtgaagtaa caccagcgtg gaaaactaaa aaccatatgt tctcactgag 3060
aagtgggagc taagctctga gtatacaaag gcatgagtca tagagtggac tttagagact 3120
cagaagggga agaataaaag gggggccagg gataaaaaat gacaccttag gtacaatgta 3180
tacatacatt acttgggtga tgggtgcact aaaatctcag aattcaccgc tatgtaattc 3240
atccatgtca caaaaacca cgtgcatccc aaaagctatc acaataaaaa tt 3292

<210> 1649

<211> 4161

<212> DNA

<213> Homo sapiens

<400> 1649

```
gcatttgatt ttctctact cagtgtgggt gctgagagac ttcccagaag atggcctgaa 60
gatatttact gaagatctcc cggaagtgga gtctctgccg cgtgatcgag tcctcggtt 120
cttaatagag aattttaagg gtctggctat tccttatctg gtaaggtatt ttttggtctg 180
cactaaaaag ctttaaacc aggatccagg actgcgtgggt tctgttatcg ggctgttcag 240
atttgggatt tatgtcactt ggggattgga aggatgaggg ttatttcagc ttcctctgaa 300
gaaaaagatc ccagtagacc aagctggaaa tgctacctac caaatctagg taaactacag 360
agggataaaa gaataatgtt ttagaaaaaa aaaattccaa agccacattt ggaaaaaaaa 420
ttccaaagcg aaactcaaaa gtgaccacag gacaatcaaa taggcttaag taccaggatg 480
cagatattta accacaatta catgagtcgc tatgagagtt tggaggatta tgggacaaaa 540
ttagtaaaat ggagtttagt aattgagaag atggctcctc acgttactgg gtcgcattgt 600
gaaacttcct ggtggcttta gacgagctgt ctcttagtca tctttgcagc ccgattaggg 660
gataatctgg atgggacctg ttgggcctta aaaatgtgag ggaggctggg agaccaggtc 720
acagcctgga gaataccagt gacaaagacc tacatcttgc ctcaggaaca catcatccat 780
gtttgggagg agacaggctc tcggttccac aactgcctga tccagctata ctgtgagaag 840
gtgcaaggtc tgatgaagga gtatctcctg tccttccctg caggtaccag ttcttttagg 900
aagccggttg gccccaggcc ttagaggaga gcacagacct aggtgccacg tgtggtgggg 960
gtaagcaggc caccctattc tctgcccagg tgcgcagaag ttctgaagag gagccagggg 1020
agctaagtga cacaagcctg gcacatgaga ctcaggagct cttgtctagg tcctggcatc 1080
tctgagtgtc tcagagtcac ccctcgggga ggggtggaagg aacagacctg tctgcaagat 1140
gacagctata ctgataagaa acaggtttgc ccacagagta tttctctatt cagcttattt 1200
ttttaaccgt aagctgatgt tttggggcca catggagact atgaactaaa agaagtttagc 1260
atggaagcca ccctggaggc cttttctggt catgtggtga catccttgaa cccattccc 1320
ttcatttttc ttgatgacct tacattgcca cctggcagtg tcctttcatt ttgagcttgg 1380
```

tttcccttaa aggcaaaacc ccagtcccag ctggagagga agagggtgag ctgggagaat 1440
accggcaaaa gctcctcatg ttcttggaga tttccagcta ctatgatcca ggccggctca 1500
tctgtgattt tccctttgat ggcctcttag aagaacgagc tctcctgttg gggcgcatgg 1560
ggaaacatga acaagctctt ttcatttatg tccacatctt gaaggataca aggatggctg 1620
aggagtactg ccacaaacac tatgaccgaa acaaagatgg cagcaaagat gtgtatctgt 1680
ccctgcttcg gatgtacctg tcgccccca gcattcactg cctggggcca atcaagctgg 1740
aactactgga gccaaaagcc aacctccagg ccgctctgca ggtcctcgag ctacaccaca 1800
gcaaactgga caccaccaag gccctcaacc ttctgccagc aaacactcag atcaatgaca 1860
tacgcatctt cctggaaaag gtcttggag aaatgcaca aaagaaacgg ttcaatcaag 1920
tgctcaagaa ccttctccat gcagaattcc tgagggtcca ggaagagcgg attttacacc 1980
agcaggtgaa gtgcatcatc acagaggaga aggtgtgcat ggtgtgtaag aagaagattg 2040
ggaacagtgc atttgaaga taccccaatg gagtggctgt ccattacttc tgttccaaag 2100
aggtaaacc agctgacact tgagcccagc atcctgggga tccagcggat ggacagcttg 2160
gctctcccag agaggngaag gagcacctgg ccttaggaat cctggctgcc accaccacaa 2220
ggctcccat ttggacatta ctggctatct tgtgccctgg aacaactctg aattaattag 2280
actcatggtc tggcattgcc agctttttta tgggaaaaga gattagtat accttatacc 2340
attatgttgt gggcaattcc agagaattca gtacctgctt ggtcaggagg atgtgcacca 2400
tcttgccctt gcacaccagt cacctgaaca aggaaacttg tcacaagtgt ttgtaaccat 2460
gggggtgttc atcaagggt tttctattaa gtacatgact tcacaaggac cgctcagcat 2520
ggctcactgg agagtccat gagagaacag cactcaagct tctggccgca tggacccgat 2580
ggctcgcatt ctgtgtagt ttttacgtct ccatggtaac tgtgccctgc acccctcgg 2640
agccgccctg ttagttttca gtctcctttt ctttctcacc atttatcact tccctcactg 2700
ccctaccag gctttctctc ccacttcct gactctggga ataactaata tttaagcaag 2760
gtaagatgag aagcaagggg tctcagttct aggaatacag tgctagtga ttgtcaggta 2820
tgttgtaa at agaccctctt tggccataca ctccatgcct agatgcctcg gagagcatca 2880
ttctctgcct aggcaaggcc ctgcatccct tgcctcaggc cgggctgagt gtgactgcag 2940
ctcctgagga tgggcctgcc ctgtctgggg tatgcgtgat ccctagatac atgttccac 3000
agagggtgcct gctccgtctt cgctcaccag aactcaggc aggctggctt agtctttgtg 3060
cgtggcgatt ttgtgctctg ggccctttct ctttttccag ccagtttcca ttcacttgcc 3120

ttacagcctg ccctggccgt cactccccag ctttgttcag caatgggtgtg gttggagagt 3180
 tgtgctggga tagcgcagga aggtgggtcc cggcaacacg caggggatga gtggacctgg 3240
 aactgacaat ggcgtgctgc caagtgttcc tgagaggtgt ttaggcacag cagaggggac 3300
 gcggggggca agaacagcag gacgctgggt taaaaataac tcaccgcca acctgtggag 3360
 cagtgtgggg catcctgcca gaggtgcaca ggctggagtt tcaggcactg caggctgatg 3420
 acacacaggg agagtggccc tgcctcctgt cctccccggg gtttttgcag actcgaagtc 3480
 tcaactgcacc agtgtctttg atgggtggtga ggggtgggtga tgggtgccag caccaacagt 3540
 tttagtggcc tgtccttgac ctgccgtggt cctttgtaaa ctatggctcc atgctgtgtg 3600
 acagatcaac gtgctgatgg taagtagact aggcttcccc aggcatgccg tccgtggggg 3660
 cctgaagaga cagtgagtgc cattggcccc attcgcagat gtgggagact ctgctcaggc 3720
 ctgtgaggct gggcagccct tcaccagagt tcggaggagc agtgtgtggc gccacgtccc 3780
 gactggccat acccacacag aagcagtgtt gcccggggcc tcactctggc cagcttggac 3840
 tctgcttcct ccaggagcag cagggaagct ctgggccacc tccctggata gcaggaactt 3900
 gacctgccat gtgtgccctg ccttcctggc cagctgtgct tgttatcttc cattctcaca 3960
 aactgtcttt gaagcaatag aataaagaat gtgtgttttc tttcctggta tacatacatg 4020
 atcccatgct cccaagctcc attcttcctt ccctcaactc tctgccctcc acagagctat 4080
 ggagaaggct ggagatgaaa gctttgtagt gaggactgat aaagatctca tcaactgctcc 4140
 ttatagtaaa cctaataaag c 4161

<210> 1650

<211> 3326

<212> DNA

<213> Homo sapiens

<400> 1650

gaggaatttc agatctttgt gagagcaaat acagacctga aatttgatgg agttgaatca 60
 ggtacttatt ttttatttcc acaagaaaga agagggattt ttatttttaa atttttatta 120
 ttattatttt ttgagacgga gtctcattct gtcaccagg ctggagtaca gtcgtgcgat 180

cttggctcac tgcaacctct gcctcccagg tttaggcaat tctcatgcct cagcctccca 240
agtgggtggg actgcaaggc tcatgccacc acgcctggct ggtttttttg tatttttagt 300
ggagacaggg ttctgccgtg gtgggtccggc tgggtctcgga actcctggcc tcaggtgacc 360
cgccccagtt gggattactg gcatgagcca ctgcgcctgg ccagaaaggg gacttcttat 420
ttgaagatag tgtctagcta attaataagc agacatctag ggaaaaggta gatactaagg 480
agggaaaagt attaataga gggaagggtt tagagctgca ctgtccaaaa gtggaatcca 540
gaagccacta gctacacgtg gatatttcaa tttaaattaa actgaaatta aaaattcagt 600
tattcagttg cattgacaac attccaaggt ttagtagcca catgtggata ctgactatat 660
tttcttttca acagatgatg tcagagcaac tggatatccg taggcaagaa aataagcctt 720
gacataaacc ttatatctta taaaattaat acaaaatgat catggatttt ttttttaaat 780
tggagatatt ttacccaaaa gtctgttgaa ataaaaaaaa ggagtatttt agtgactgca 840
gaaagttatc ttggacagtg ctggtttaga agcccataag acagagagac tatagtatgt 900
taatgaatta tttatatatt ttatttcagt agcttttggg gtacaagtgg tttttgtta 960
aacggatgaa ttgtgtagtg gtgaagtctg agatttcagt gcacctctca cccaagtagt 1020
gtacattgta cctaatatgt agttttctgt ccttcacccc ctctatcct accctcttct 1080
gagtctacaa tatccattat accactcttt atgcctttgt gtacccatag ctttgctccc 1140
acttataagt gaaaacatac tgactttcca gtggatattg gttttccatt cctgagttac 1200
ttcactttga ataatggcct tcagtaccat ccaagttgct gcaaaagaca ttatctcatt 1260
ttttttatgg ctgagtagca ttccgtgggtg tagatatacc acattttctt catctactca 1320
tggctgatgg gcatttaggt tggttccatg tctttgcagt tgttaattgt gctgtgaata 1380
atgtatgtat gcaggtgtct ttttgacata atgacttctt ttcctttgta tagatactg 1440
gtagtgggat ggtcggattg aatggtagat ctacttttag ttttttgaga aatctccata 1500
ctgttttcca taattgtttt aatttataat ttacattccc atcagcagtg gacaagtgtt 1560
cccttttcat cacatcgatg ccaacatcta ttgttttctt ggctttttta taacggccat 1620
tctggctgga ggaaggcggg atctcattgt ggttttaatt tgcatttacc tgatggttag 1680
tgatgttgag catttttttc atacgtttgt gggccatttg tatttcttct tttgagaagt 1740
gtctgttcat gtcatttgcc tactttttga tgggattatt tgtttttttc ttgctgattt 1800
gagttccttg tagattctgg gtattagtcc tttattggat gtatagtttg ctaatatatt 1860
ctcccattct gtgggttgtc tgttttattgc gatgattatt tcttccacag tgcagaatct 1920

ttttagttta attaggcccc atttatttat ttttggtttt gttacatttg tttttggggt 1980
cttaatcata aattccttgc ctaggggtgat gtccagaagt ttttcctagg ttttcctgta 2040
ggatttttat ggtttcaggt cttttaagtc tttaatccat cttgagttga tttttatatg 2100
tggtgagaga cagggatcca gtttcattct tctacgtgtg gctgtcctgt tttcccagaa 2160
ccatttattg aatagggtat ctttttttca atttatgttt ttgtatgctt tgtcaaagat 2220
cagctgggtg taagtagttg gcttttttcc taggttgtct actctgttct attaactttt 2280
gggtagtgtg gtcattttca cgatactgag tegtccagtc tgtgagcatg ggatgtttcc 2340
atttgtttgt gtcacttatg atttttttca gcagtgtttt gtagttcttc ttgtaaagat 2400
cttttacctc cttgtgtaag tacacttcta ggtattttat tacttttggt gtagctattg 2460
taaaagggat tgagttcttg atttgattct tagcttggtt gttgttggtg gcggtgtgta 2520
gcagtgctac caatttgtgt acattgcttt tgtaacctga ggctgctgat tcatttatca 2580
aatctaggag tcggcctggc atggtgactc acgcctgtaa tcccagcact gggaggcgag 2640
gtgggtggat cacttgaggt cgggaggagt tagagaccag cctggccaac atggtgaagc 2700
cctgtctcta ctaaaaatac aaaaattagc tgggcgtggt ggtgggtgcc tgtggtctca 2760
gctgcttggg aggctgaggc atgagactca tttgaacctg gaagccagag gttgcagtga 2820
gctgagatca tgccattgca cttcagcctg ggtgacagag tgagactgtc tccagaaaag 2880
aaaaaaaaaa atctaggagt cttttgggta agtcttttagg gtttcctagg tatatgatcg 2940
tatctttggc aaatagagat agtttgactt cttcttttcc aacttaaagt ccctttactt 3000
ctttctcttg tctgattgtt ctggctagga tttcctgtat taataaatta caagaaatat 3060
gtagtagccg catgaagtgg ctcacgcctg caatcccagt accttgtggg ggctgaggag 3120
ggaggatcgc ttgaggccag gagttggaga ccagcgtgag caatagtgcg agaacctgtc 3180
tctaccaaaa aataaaaata aaaaatttaa ccaggcatgg tggtaaccac cttgagtctc 3240
agctacttgg gaggattgct tgagcccagg aggttgaggc tgcagtgagt tatgcactgt 3300
agcctgggaa acagcaagac catgct 3326

<210> 1651

<211> 4212

<212> DNA

<213> Homo sapiens

<400> 1651

ggttttgatt	tttaagagct	gcctcaggag	gagcaggggc	catttggaga	attcctcctt	60
gaacctcttg	gggtcctgct	tagtcctcat	taaactcagg	ccaggaaaca	gcagcacatt	120
gccaaactggc	caaggagaag	ctacccgggc	cctgcccagg	gtctattggg	taaacgtctg	180
tccctagaga	cagacactca	ctcattcagt	cctttttttt	ttttttccag	agatggggtc	240
ttgtccaggc	tgggggtgcag	tggtgcattc	atggctcgct	gcgactgcta	cctcctggat	300
tcaagcgatc	ctcccacttt	tagcctctta	agcagctggg	actgcaggca	tatgccatcg	360
tacctacctg	atTTTTctct	TTTTttgtag	agatgggggt	ctcactatgt	tgcccaggct	420
ggtctagaac	tcctggcctc	tgggggtcct	cccatctcag	ccttctgatg	tgctgggatt	480
acaagtgtga	gccaccactc	ctggccccat	tcattcattc	attcattcac	tcagtcactc	540
atacattcaa	ctgccatttc	ctgagcacct	actgtgtgcc	cagcactgtg	ctagatgctg	600
aaggtacaac	agtgagccat	gcaagcacag	caggggacac	taggggaagt	tctgcagggg	660
acccacacac	aagcagcgtc	ccagccactc	tgggacacag	agacaggctt	tccctaggaa	720
gtggcatctg	aggaggcctg	gaggttgagt	agacatcata	caggttgggg	cgtgagggaa	780
gggtgctcct	ggcagcagga	acagtgtgca	caaaggggct	ggggagagtg	gggctgaagg	840
gagcacagac	aggccagcac	ttggagggaa	gttgggggca	ggtgcaggcc	aagctgggtg	900
gttggcagag	ccagatctgg	agggtacctg	actggagctg	gcgggccaac	ggggagccta	960
tactgtacc	taggagatgg	tgaagaggaa	gggggttggtg	ctggcagaaa	agagaggagt	1020
ggggggattc	cagagaatcc	aggaatggca	tttccagggc	tccacgactg	ggcactgggg	1080
gaaaggctctg	tttctgatgt	ctggctggtc	tctggcttgg	atggatagtg	gcgccatgga	1140
tggatggtga	gctgagagga	gggcactccc	ggggagggatg	gcgatgggca	tcaggtaaac	1200
ccaggcaggc	gtcccaggca	ggacttgcct	ttgcgctccc	aggtccccct	gcctccctct	1260
ggctccgtcc	ttctgccttc	tactccccctc	tgccctgagg	acacctgaga	gctgaggaac	1320
cccactgccc	tctggaaccc	acacccgggg	agggcacagg	cgaggtggca	cctcccctgg	1380
ccaccaggct	gcgcagccaa	ggccgtttct	gatcagcctg	catgcctccc	tctgggcaga	1440
tgcagctgcc	ctactgctct	tagggggcat	ctgctgggggt	ccttgccctt	tcctctgccc	1500
tggacccctc	tcaaaaaggg	gcctacgtgc	ctcctggagc	ctccagcctg	ggctcaactg	1560

tggggacctg ggagactcag ttccctcttc tgtccccgc tcgctcccc aggccacctt 1620
gaacaaagaa tcctgcaggt gctgacagag gctggctccc cggtgaaact tgcccagctg 1680
gtgaaggaat gccaagcacc caagagggag ctcaaccaag tcctctaccg aatgaaaaag 1740
gagttgaaag tctccctcac atccctgcc acctggtgct tgggcgggac tgatcctgaa 1800
ggcgagggtc ctgcagagct ggccttgtcc agccctggta actgccaccc cggggaggcg 1860
ggtctgaccc tgcagggagc atcctggcaa tggacaagca cagatttgag cctgggttcg 1920
aatctgaact ctgccacatg ggagctcaca ggtttcctct ctctgtgcct tggtttcttt 1980
ttctggttga tggagctcac agcagggctg cttggtaggg gttgctgaga ggaggccctg 2040
cgtcaggctc agcccagccc tgcacacagg aggtactctg cagaacacta acaattataa 2100
tagaaaatca tcatgatgga gacagcaatg acgcatggt cccaatcaca gaacatatgc 2160
agtcccacca gcccccttt tctagcttta cagcccacag ccagaaggag ctgccattta 2220
tcatgcactt aagattagcc aggcactgtt ttggggttca cccagccctc acacaacccc 2280
aggaggcaaa ggaggctgag ccccgagaa gttaatcggc aggaagccgc agctgccagg 2340
gcgcaggcag gatttgaagt caagtgtgtt gaactctgga gtctgagttt gcaactaccg 2400
gcattgccac ttaccctag ggagctgccc acctttgtgg ggtggaggcc cggtgctgtc 2460
ttctgtcccc caccctctg acccatcttt ctttctgcag ccgagaggcc ccagcaacat 2520
gcagctacaa ttccagagac ccctggccct cagttcagcc aacaacggga ggaagacatc 2580
tacaggtttc tcaaagacaa tgggtccccag agggccctgg tcatcgcca agcactggga 2640
atgaggacag caaaagatgt gaaccgagac ttgtacagga tgaagagcag gcaccttctg 2700
gacatggatg agcagtccaa agcatggacg atttaccgcc cagaagattc tggaagaaga 2760
gcaaagtcag cctcaattat ttaccagcac aatccaatca acatgatctg ccagaatgga 2820
cccaacagct ggatttccat tgcaaactcc gaagccatcc agattggaca cgggaacatc 2880
attacaagac agacagtctc cagggaggac ggttccgccg gtccacgcca cctcccttca 2940
atggcaccag gtgattctc aacttggggg accctagttg atccctgggg gccccaggac 3000
atccacatgg agcgggtccat actgagacgg gtgcagctgg gacacagcaa tgagatgagg 3060
ctccacggcg tcccgctcga gggccctgcc cacatcccc ctggcagccc ccagtgttc 3120
cagtgcagtg ggaagcaggc agcagaggag agaggagctg aatcccagag gaagacactg 3180
acgtccagat cagccgggcg ggatcagtgg ggcagacca ctgcgggatc agtggagcag 3240
aaagacgctt cccagacagc acaacagcac gagcggagtc tctgccactg ctgccggccc 3300

agaagcttcg tttgaagcaa gaattcccag tccaggaact caccctgagg gggaagccgc 3360
 ccagagaatc cacatgaaat cgtgctttct cgaggacgcc accatcggca acagcaacaa 3420
 aatgtctatc agcccagggg tggctggccc aggaggagtc gcagggtctg gagaggggga 3480
 gccaggggag gacgcaggtc gtcgtcccg c agacacacaa tccagaagtc actttcctcg 3540
 agacattggt cagcccatca ctcccagcca ctccaagctc accccaagc tggaaactat 3600
 gactcttgg aacaggagtc acaaagctgc agaaggcagc cactatgtgg atgaagcctc 3660
 acacgagggg agctggtggg gaggtgggat ttagtgaca gcctcacgtg gggcttggac 3720
 acaggctggg ggtgggcgca tgctaggag actagcctgc tgctctctgc attccttagc 3780
 gtcttgttg acctgcttgc ttccagacat aacctgcatg aatcagttt gggggaatgg 3840
 acctggcatg gggatgggtt caggccaggt cttttgatgg ccaggagtag atgacaggga 3900
 gttgccttgg ggaacctttg gtgtgccaa aggaggtggg tagatgggag tggggctcgg 3960
 tccccaggc ccaggggact ctctccactc tttcctgggc tcggggcatc tgcctggagt 4020
 taccttccat catggctacc tgctgtggtt tgaatgtttg agtcccaaca aaattcatat 4080
 caaaacataa tcccaactgg gtgcagtggc tcacgcctgt aatcccagca ctttgggagg 4140
 ccgaggcggg cggatcaata ggtcaggaaa tccagaccgt cctggctaac atggtgaaac 4200
 cccgtctcta ct 4212

<210> 1652

<211> 3418

<212> DNA

<213> Homo sapiens

<400> 1652

gatataaaaa ttagctgggc gtgctggcac atgcctgtag tctgagctcc tcggacgctg 60
 aggctcaaga atcacttggg ccttggaggc ggaggttgc gtgaactgaa gtcattgtac 120
 tgtactccag cctgggcgac agaggagagc tctatccacc cccaccccc ccgcaaaaaa 180
 aaaagctaag aaatgggttt tattgctcag tgtcaacggt tttgtgtgta tattcatctt 240
 aagtacaaaa cagatattaa ttccatgcc aactcaggt atacaaaaga atgtaactta 300

aaaaagttag taattgaact taatatctat ttttaagcccc tattttattct actgaattat 360
agacacccaaa tttcacctaa ttcaaggttt ctttattccc ttttctctgg ggttatatgt 420
aatgtagagg ggactaatgg tatgccagta ctggtgatat ggggtgacgt gattctcatc 480
catctgtgct acaatctgct gaggtgtttt catttgcatc tggcttttgt cagatttgtg 540
caagttcctg ctgcaacttt tgaccctgtt caggccactg gctctcttgt ttcctgtcca 600
tgctgcactg agcgctttgg aatatcatta tgtatctcaa gctgccttgg gtgttgagaga 660
agagctttgt gggactgaag acccatttct gcttaaacad aatcatgcag acattctgat 720
tgcttcattg taataccttg tacagaaaga actctgtgaa ggtctacctc ttcagacaat 780
cagggttttag ggcaagaggt ctcttctgct gtttgatttt caaacctgcc ttggagtttc 840
ttttgttctt cctgctaggg aggattcaac ttgcatgaaa cagaatgcag ggtgggtttt 900
tagggatccc attaactctg agcgctgtta gctttcattc tggcttttct tttccctaatt 960
gcatcctatt gagactttgt ctagtgtagg atgtaaaaaa gcctgatgca tatagtattc 1020
caaactttta gtcttaaca ctaatttcag cttttaaaac ttggtaccag cactcagaaa 1080
ttttctgttt tgctgggcat gccatctgtg atacaatgag tattcctgac taaatgggag 1140
ggtagtactt tgatttttca aagtattttc ccatcataga tataagtaca taggaaaata 1200
taattcctta tttggttttc ctttttaata cagagggttt gtaatatagt gtgtttaata 1260
accttaata ctagattata aattttttga cagcaagtac taagtcttac ttgtttctat 1320
atttatcgaa gtgatcaact agagggtgcc cagtgacttg atttattgtg acattaacaa 1380
tacaaggtta aacttgctat catcaggtaa atagggtagt ttattaaggc tggctgggtcc 1440
agcttccctg gtcaactaac actggcctga aaaataaaat aatttgtggt tgtcagatac 1500
taaattaaat gatctgagta ctactgcaac ttattaaagg actttattca atttctagaa 1560
gaaagaaaac actggattac caaaggcttt tctggctctc ccttctattc tttaggtctt 1620
cccaaaagtt atcttctggg aagatgccaa tacatgatca cgactctggt gttgaagatg 1680
aagatttttc tccaagacca attcctagtc ctcatccagt gagtcagaag atttctaaga 1740
tccaaccatc agttcctgaa ctttcacttg tgttggatgg caatttcata gaatcaaacc 1800
ctctgcctac tccattggaa atgggtgaata atgaaaatcc tcctttgatt aaccacttgg 1860
aacacttgaa gccattgcaa ccccagcttt atgatgagaa acacagtcca gaagttgaag 1920
ctggagagcc ttccttgaga ggaataccaa atcagttaaa ccaggataaa ccagctcttt 1980
tgagacactg caaagtaaga cagccacctg cctataagaa agggaacccc cataccagga 2040

acagtattaa accatcttct cataatgggc catttcatga tatatttgaa aagctccaaa 2100
cagtttctgc tggaaatgta caaaacgaag agtatcctat aagaccctcc acacttaatt 2160
ctaggcagtc ttctcttgcc ccgcagtcce aaccacacga ttttgttttt tcaccccata 2220
attcaggaag accaatggaa cttcagatac ctactcccc actgccatct tactgttcca 2280
caaacgtttg caggtgttgt cagcatcata gtcatttca atatagtccg ctaaattctt 2340
ggcaaggagc aaacacagtt ggatccattc aagatgtcca gtctgaagcc cttcaaaagc 2400
attcattatt tcaccaagt ggatgtccag ccctgtactg taatgcattc tgttcttcaa 2460
gtagtcctat agccttgaga cctcagggag atatgggcag ttgttctccc cacagcaata 2520
ttgaaccatc gcctgtggca agaccgcctt cacatatgga cttatgtaac ccacagcctt 2580
gcacagtgtg catgcacaca cccaagactg agtcagataa tggaatgatg ggactatctc 2640
cagatgcata tcggttcttc acagaacaag acagacagct aagactactt caggcacaga 2700
ttcagcgttt gttggaagca cagtctctga tgccctgttc ccctaagaca actgctgttg 2760
aagacacagt gcaagctgga agacaaatgg agttggtttc tgtggaagca cagtcttccc 2820
ctggcttgca catgagaaaa ggtgtaagca ttgctgtgag cacaggtgct agcttgtttt 2880
ggaatgcagc aggtgaggat caagagcctg actctcaaata gaagcaagat gataccaaaa 2940
tttccagtga ggacatgaat ttttctgtcg atattaataa tgaagtcaca agtcttccag 3000
gtagtgcata ttcattaaaa gcagttgata ttcccgattt tgaagagagc aacattgctg 3060
tggaagaaga atttaaccag ccactttctg tatccaactc ttctctagtt gtgagaaaag 3120
aacctgatgt acctgtgttc tttccaagtg gccagctggc agaaagtgtg agcatgtgtt 3180
tacagactgg accaacaggg ggtgccagta acaattctga aacatcagag gaaccaaaaa 3240
ttgagcatgt aatgcaacc ttgcttcac aaccatcaga taaccagaaa atttaccagg 3300
atttattggg tcaagtaaac cacctattaa atagttcctc cagggaact gagcagccgt 3360
ctaccaaagc agtaattatc agtcatgaat gcaccagaac ccaaaacgtt taccatac 3418

<210> 1653

<211> 3717

<212> DNA

<213> Homo sapiens

<400> 1653

ataagcgggg	tttgggaaat	tttacataac	ccccaacctg	ctcattttctt	ccatggctat	60
attaatgggt	ttttttgttg	gttttttagtt	ttttttaga	gatgaggtct	caccatgttg	120
cccaggctgg	tctcaaactc	ctgggctcaa	gcgattcacc	cgcctcagcc	tccaaggtg	180
ctgggattac	aggtgtgggc	cactgcgcct	ggccctatga	atggctttat	ttattttatt	240
gtttttgaga	cagagcttct	ctcttgttgc	ccaggctgga	gttcagtggc	gccatctcgg	300
ctcactgcaa	cctctgcctc	ctgggttcag	gcgattctcc	cgcctcagcc	tcctgactag	360
ctgggattgc	aggtgcccgc	cacggtgcct	ggctaatttt	tttgtatttt	tagtagagat	420
ggggtttcac	cgtgttggcc	aggctggtct	caaactcctg	accaggggtc	atccgctcgc	480
ctcggcctcc	caaagtgcctg	ggattgcggg	cgtgagccac	cgcgcccagc	cctatgaata	540
gttttaatgc	cgcactattg	agaggttatg	agagctgacg	tgccgggcag	ctgcttggga	600
gaaaggccca	gtgtctgggt	gacgtcgcgt	ctccatactg	tctcattgag	gcttttcctc	660
ttttctcatc	acagcatcct	aatgtcctat	gatcacgtgg	aactcacatt	caatgacatg	720
aagaacgtgc	cagaagcctt	caaagggacc	aagaaaggca	ctgtctacct	tacccttac	780
cgggtcatct	ttctgtccaa	gggcaaggat	gccatgcagt	ccttcattgat	gccattttat	840
ctcatgaaag	actgtgagat	caagcagccc	gtatttgggt	caaactacat	caagggaaca	900
gtgaaggcgg	aagcgggagg	tggctgggaa	ggctctgctt	cctacaagtt	gactttcacg	960
gcagggggcg	ccattgagtt	cggacagcgg	atgctccagg	tggcatctca	aggatatccag	1020
gctccgaaga	ttaggggcta	aagacacact	aaacatgtgg	gggtttggta	tgagtttgct	1080
tccttttcgt	tttgcttttt	caagaactca	agaggtaagt	gtttgggcac	caggctgacc	1140
aggcctagga	gttggaagg	aaagctgtca	ttggcatcag	ctctgtcctg	tacctcagag	1200
actgcgtttc	cctgcctggg	gcaggtggat	gacgttttga	caaagctggt	tggactcaag	1260
gacactttac	tatggcctca	taaaacaaac	actaaaccaa	ccattcgact	gcggttccgc	1320
agccattgaa	aatgaccgag	ggatgggcca	gcagacatcc	tccgccagct	cactcctacc	1380
ccagccctga	gcctccctcc	cggcctctgt	ccaccctcca	gccttgccct	tgacctccct	1440
tgctttcccc	tggctctgac	ctctcccgtc	ctctctcatc	cctgaccaag	gtggcccccc	1500
gagtatgggt	ggagggtgga	gtgggatgga	cagaggatgt	ctgcggggca	cattcctgag	1560
accagtagc	tcccatctgc	aggcagcggg	gctgccctct	ccccgcccc	aggcaggcca	1620

cgctcatttc tccttccttt gtactcgtag cctccagagg tgaagtcccc agtggagcct 1680
atggctactc ttacatgccc agcggggcct atgtctatcc cccgccagtc gccaatggaa 1740
tgtacccttg cctccttggc taccctatc caccgcccc acctggtgag tgtgtccttt 1800
gtgccccca ctccctcat gagccacct acccaggctc ccccaggcc agggagactt 1860
tattccttga gctgcttcag gaccaacgaa ggagctggag aggccccct caccgggag 1920
ggggccgcag ccgggtgctc accatgtcct tgttactctc tcaccgagca gatttctatc 1980
caggaccccc catgatggac ggggccatgg gatacgtgca gccccacca ccgcctacc 2040
ctgggccccat ggaacctccg gtcagcggcc ccgatgtccc ctccactcct gcaggtgagg 2100
gcccttgggt gctggcagcc cttcgggacc agccctctcc tccccgatgt cgcacagaga 2160
gcctcagaat ggccagagac tgctgagagc cgcagatgat ggatgacccc tggactaccc 2220
caggggcccc gcagggctgt ggcctggtgg agcggagcta gattctggcc ccacccccat 2280
cccttagcta tccatgtgcc ctgggcgggg aaggtcacc tgtgtgcctc tcgatcctct 2340
catctacact cagctggtcg gtcacagtgg cacctggggc attggctcaa ggattagatg 2400
aggtgagaca tgcgatgggc ctggaaagga ccgtgccagc gcgtggcatg tgctcaggaa 2460
acctcacctg ctgctctcat tgggtggaact ggacccccag caccagctgc cccgagccat 2520
ggggggcccgg ggtctcttag ctgagctcag ggggaggaga acttgtcacc gacaccaggt 2580
gtgtttgctc tcacagccga agccaaggcc gcagaagcag ccgccagcgc ctattacaac 2640
ccaggcaatc ctcaaacgt ctacatgccc acgagccagc cgccgccacc tccctactac 2700
ccaccggaag ataagaagac ccagtaggcc ctctgcctc cctgcctccc acctcatct 2760
ctctacccta cccctcccat cggggctgtg ctggggcttg gggaggggag ggggcgcctt 2820
gttctccctc caggtctgat cataaacaat taccaggaac tagcattgtg ggacattagg 2880
gccccggcc tcgggagagg tgccgccag ctcccatgc cagcccgag cccacagtgc 2940
tgcccagcgt acctccctca ccgtctgggg ctcttctggg agcacggagc atcccctgtt 3000
cctgtttcac tctcagcttc tcccctcgaa gggactctct ggccacctcc tccaccgcag 3060
tccagctccc tcagtctggc acccactgct aactcagcc tcatgagcca cttcagacca 3120
gccaggtgtc ttcccgggcc ctgccagacc ctgctcacat tccctctgct ggtctgtgct 3180
ggtctcagaa ggccaccgcg ccgcattcc actcagccag ggtccagctg cagccccgc 3240
cacccttctt tcccttcct gtctgggtc atgttgttgc caccctgtgt gacttttgaa 3300
gctgtaaaat gagcttccag ggcttgggtg gcgtcggggc agggccgccg aggctgggag 3360

gaagcccttc tgccttttgc tgggtgtttct ggaatttgct ttcctcacc tctcacttcc 3420
 ttctagaagg agcttcctga ctggaaccag agaatgcatg tctgtccact ttgtggctgc 3480
 tgggtggggc cggaacaag ggcccctgac cctgtgtgct ggccgggacc tgccaccagc 3540
 cccccagcct gcttcttccc cttaagcttt gtgcccctgg atgcgctaac attcactctt 3600
 gtttgtccct ggactggcca tgaagtgagg agatggttat ttaaagagaa ttcctatatt 3660
 atttgacaaa aaatccagtt aatatattaa tgtgaaataa accctgtttg cacctcg 3717

<210> 1654

<211> 2795

<212> DNA

<213> Homo sapiens

<400> 1654

cttccctccc ggaaggggcg tggctcttca gaggcggcaa attgcaagga gacgccgccg 60
 ccttcatgct gccggcgggc tgctcgcgcc ggctggtggc cgagctgcag ggcgccctgg 120
 acgcctgcgc acagcgacaa ttgcaattgg agcagagcct gcgcgtttgc cgtcggctgc 180
 tgcattgcctg ggaaccaact gggacccggg ctttgaagcc acctccaggg ccagaaacta 240
 atggagagga ccccttcca gcatgcacac ccagtcaca agacctcaa gagttggagt 300
 ttctgacca gacacgagac ccacggtgcc tgccaagggc caccctgagc gccggctgct 360
 gtcagtgggg gatgggacc gtgttgggat gggagcccga acccccaggc ctggggcggg 420
 cctcagggac cagcaaatgg ccccatccgc tgctcctcag gcccagaag cttcacact 480
 caaggagaag gggtaggttt cccggaccct cactggaggg acttctgtct ctgcctctc 540
 agaccctggc tagcaaggag cctgggattt ggggtgacag ggaaggcagg gcatcgagcc 600
 ctgtggcata cccctgaggc tcatgctcag aagctggcag aatgaagcag ctgtgtggtg 660
 gtgtccaggt tggcaccatc aggtcaggga agtactggag cctgtcctcc tctcttctct 720
 gtggctgtcc ccttatttgc ccaggccaga ggctccagat gggctctgga gggcgtggga 780
 tctgctcaca gggccccgct cacagggcc cctcttctct ctaatggggc agcactggac 840
 gatgcttctc ctatggccac tctggaagcc ctatccaagg gggctcatcc ttggtggggt 900

cgggtgtggg agaggggcaa gaagcctcat ccctgattgg gctctgagca ggaagtggga 960
ctttagtagacc ccagagcaag gcgatgctcc tctgaacacg ggcttctccg acaggcacct 1020
gctgcggctg cctgcggcat tcaggaaagc agcttcccag aactcgaggt gaggctgagg 1080
tctttggctg gacgggggta ggggagaacc gggaggcatc accagctcgg ggacaggttc 1140
gagatacttt ccagtgggtc tctttgtcct ctttgctgag tgggatcact gtcgatgtta 1200
aaaatctgcc agccgggtcag ctttgtcccc ttgtcctagt cagtgtcctc ttggttccct 1260
gcggcctctg gaggccctc ctggcattca gcagagccag acgcccagcc tgggggtcccc 1320
accttggccc ttgcctacct cccaaggccc agcttactgg ctggaataac cgtgtccctc 1380
tgtggttccct ctgtgcaccc cacgtgtgca cccagcctg tgggcccagc tcagttccac 1440
acagaccagt gattccacgg atgccgccgc tgccaaaacc cagttcctcc agaacatgca 1500
gacagcttca ggcggggcccc agcccaggct cagtgtctgt gaggtggagg cggaggcggg 1560
gcgcctgcgg aaggcctgct cgctgctgag actgcgcatg agggaggagc tctcggcagg 1620
tcagtgggtc ctgggtctgt atcaggagga gtgtggaggg ccagtgcagg gagggtttcc 1680
agactgccac gggccccacc tgctctcct gactcttctg cagccccat ggactggatg 1740
caggagtacc gctgcctgct cacgctggag gggctgcagg ccatggtggg ccagtgtctg 1800
cacaggctgc aggagctgcg tgcagcgggtg gcggaacagc caccaagacc atgtcctgtg 1860
gggaggcccc ccggagcctc gccgtcctgt gggggtagag cggagcctgc atggagcccc 1920
cagctgcttg tctactccag caccaggag ctgcagaccc tggcggccct caagctgcga 1980
gtggctgtgc tggaccagca gatccacttg gaaaagggtc ttctggaaga ggaggtgggg 2040
gtgcaacaga ggtccgcagc cttgaggacc cgagggtagg ggcttgactg ctccaccccc 2100
caggacccag gaggatgggg gcaagcctgg ggtctgtgtg tgtgggttgg gaagtgcattg 2160
ggtcagacgg ggctgggacg gcaggaggga gcctggagcc tcagaaggag ggaggagggc 2220
tgaagcatgg gggcctcgaa gcctgtccca ggattgcccc ccgcctaggt gccctgaga 2280
ccttggccct gccctgccct gccccagggt cctgatggct gaactcctcc ccctggtaag 2340
cgctgcacag ccgcaggggc cgccctggct ggccctgtgc cgggctgtgc acagcctgct 2400
ctgcgaggga ggagcacgtg tccttaccat cctgcgggat gaacctgcag tctgagcctt 2460
tcccatgctg ccctcggcct gttcagatgg ggattggggg tgtcttcctt ggcaactgtgc 2520
tcggggaccc agagatgcct gtgcttcctt gggaaacctg gtgaactgga ccaggtggcc 2580
tcaactggctc ttctcaggac aactaagcct gctgggtcagg gctggctttc agccttccta 2640

aggctcctgg actccagagg ccagcgggga gcctttcctg gctccctctg ttttctctca 2700
ctgtagacca aagagccgct tgtgtgatat taaagccact ttagaaagca aaaaaaaaaa 2760
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaacc 2795

<210> 1655

<211> 3473

<212> DNA

<213> Homo sapiens

<400> 1655

gttattactc gcgactggac ctcgcgccgt gttgctctcc tcgggccccg agccccccca 60
gcggtctgca cggcccaggc ctgagctgcg ggctttctct gtggggcgcg ctgggagtga 120
gctcttcccc aaagccatt tcaacgtccc aggtatgact acgacggcag aggccggccg 180
cccaccctcg ccccttccc cggccagagc gcctttgccg ggagccgacg accgcggcct 240
gaccccgggc cccaccgct actcccggct cccgcccttc ctccacggtc aggggtcaca 300
cacagcggac gccccgttct cagccgcccc tctgatctct gaatttggga gccagcgtgt 360
ccgctggggc gtgactgcc acgggcactg ggaccccttt gctgctgcgg ggaggagccc 420
cgacggcagg tgggaagacc tagcctgccc gcgtccccgc tcccagctc ctgcgaccgc 480
ggccgaggct ctcagcccct gggcttcccc gctccgggtt tgaggaggagg gccgggcctt 540
cgggcctgca gaccgcccac cgcgcgtgcg catgcgtcgg ccgcgagccc ccgggtgcag 600
gcctgggcgg ctccggcccc cgcacttgct caggcgctgc ggctcagcg gcccacact 660
ccagctcggg cggagagcgg gggcgggact gaagcaccgt gttcctcaaa gtatcctctc 720
gccgtcggca gccctggcct cgcaaagtct ccagcgcgct caggcgcacg cagagactgg 780
cgcggcagcc tccgggccaa cggcacgcga gcaaagctgg ttggcgacct gggacacgca 840
gtagaagtgt gggctgcacc gactcccgcg gcttcggggg aggcattggc ccgggcaggc 900
ctaggaggaa gctgcacagc ccgaggcccc ggccgggagt gcgggcccgc ggcaagggaa 960
cgtatatatt gaaggggtca ggacctcggc tggagtctgg ctttttatgg cgaggaagcc 1020
gactgggaag ggccctctgg cgaggctttc ctgttgtgcc acttttccc ggcagcgccg 1080

ggcgcgggga acgcggggct gcaccggggc gggggagggg gctttacccg gcggctccga 1140
ggactcgact ctggggtcgg gcccggcggg taggcctgcc caggagccag ctggcaaagt 1200
cagcggactg tcacgttatt cactgtcac cacttactgt aaatcactgt cctaagcctc 1260
cgggagaatc cgtcgaacct gagagggggg agggggatgg ggggtgggcgc gcaggaagcc 1320
ccacaggcac cagggactgg tgaccagga catcagcccc tcgagttctc tctgggaatt 1380
tctagcacc agactgtccc tgactgtagg gaccacggtg gggcgtcttc cttctaagct 1440
ctccccggga caccgggcgc gccccctcg cccctgggtt agcgcacact cctccacgcg 1500
atgaccagca cagccactgt gaggccggc cttggccgcg tttgtccttt gcgagtata 1560
ataataaaaa tcattggaat tgcaaggaag cccctggccc cggctcccca gccgtgctg 1620
tcctgggtgt cccggctgcg gaaagacccc gcagccgggc ccgaccacg agtggaaac 1680
cgggctgcgg acccagccgg gcctacagga ctggcgcggg gctccgggga caggcctgc 1740
agggccctcc tgcgcaccgt ctgggacgcc gattttgcca acttgaggga caatTTTTgt 1800
tttactcta ccagcagatt tttaaaaatc cagtcgccgc tgaaacgtgc tttccaccg 1860
tccggtttgt tttagcctt tgacgagccc cggcacagcc tccgggacca atgacctgt 1920
tttataccga aggaaatgtg gaggccttaa gagttaatgg cgctaaatgt gttggttttc 1980
ctgctttttc cccggggtag ctaatgggag gggggatgtc cctctctcca cttcttcct 2040
ccccctctt ttcctctcc ctctcccca tctcgggatc taagtcgtcc tcaaagctct 2100
ccaaaaaact cttctcttc ccaaccttga gtacaggga ccacataacc accccgtgg 2160
agccccctcc tggagcctcc tccgcctctc taggccctgc ctggggctcc accacttggg 2220
tcaagccaga ggcctcactg cctggtcctg gctcccgtc tgatgctcac ttgctgggt 2280
caciaattgc tctccatgc ccaccaagt agcaccaagc tgtgttgact tagggggcca 2340
aggagcagcc cactgagtc cctcagtagg agcggcctgc agtggcagct gcaggagagg 2400
gtgggcccgt caagtcctaa tgacacccat ggggaccagt gggcttgag gggccacgg 2460
acacgccaga gaaagaagat gctctttgga gaaaggagg catcctctgg accaggaggg 2520
ggccccgggag aagccccatt gaggtttgcc aggtcacct cccaaccca ggcagggaga 2580
ttctgagctg ggagcaattc caagccctcc ccgaggacca cacagacca gcctcttctc 2640
tctggctgtg tctccctgtg tgagctccag cttctccaa gacagggcca ggtctatgtg 2700
caaggaaatt ccagatccta ctgcatctcc cgtaatacgc tcaatatgct gcaaatTTga 2760
aatcagttag ggaaaaatc aagtaaaca ccaaaaaagt aatataaacc agagggtctc 2820

tttggggcca gggtaagatg ggaaaggagc acaacaaagg tcttaaattg agccgtacgc 2880
tccccgcgtc gtacttttgt ttccaataag gtagatatgg tacattttgc tcaattttcc 2940
agtcgtaatc acgttgagaa ggttcgtgga gaagctgctt tcattttcct aaatggggtt 3000
tggagctgga attcatttac ttaagtattg tttctttccc agccgactag gacctggaac 3060
ctgcctgtcc ggctgcagtg tggccccaag tctgttgagg cctgggcgca agctccgcat 3120
cagggtgca tccggcccat ccccagatg gtgcagtgga gggcaggcat gcaggcccct 3180
gagctgggct cggagtgggg acatcccaga gaaactttgg ggccccacag ctttctgtgg 3240
gggcaggaag ggaaaaggat ggggaaaagt gacagagacg aagagacaga cacaaagacg 3300
cacagagcct aatggttatg atgcattccc accgaaaagg gggagatggg ataaaagagg 3360
gtgggaaatc aaggcctcgg aagcttcaga caagaagaca gagccccct gcaaaggaag 3420
acattcggtt aaggtgggag ggaaagcatc aataataaaa gctctttgca ggg 3473

<210> 1656

<211> 1066

<212> DNA

<213> Homo sapiens

<400> 1656

cccaaggacc tgttgtgtgc ccagcttgga agacagtggc cactcacatc caggtctctg 60
cctggctatt tgctccatga acccatctca gatgcccctg ccccagggga gccaggtgac 120
agggtgaggt caagtgacaa gcagtaggtg tgggagaggt ttggtggggt caggcccaca 180
tgggcccagc catccactcc ctttccatct ggagttgggg gagtctgagc tgctcctggc 240
caccatctct gcccacccc atcttttctt ggccacccc gctcccacc catcttctcc 300
tggccacccc atctcccacc ccatcttctc ttgacacccc atctcccacc ccatcttctc 360
ctggccaccc catctcccac ccatcttct cctggccacc ccatcttctc ctggccaccc 420
catctcccc acccatctt ctcttgga ccccatctc ccacccatc ttttgctaca 480
gccagggtta gctcagcagg tgaaaacccc gaggggtgggt gaaaccctc tggggctcag 540
acatgcaaac cttgggcac tctctgtccc agctggcccc gccagccggt aggaagtttc 600

ccctgagttc tcagtttttt cttctgaaaa atgaggggtt gtatgcaagg ttctcctcct 660
ggcctgtggt ccccagagaa gggcaggaag gaaccttaga taattctcat atgcatttaa 720
cagacgagga aactgagacc cagagccgtc acatcaatac ctcatttgat cttcataaga 780
gcacctggag gaggggggtg ggggtgtttgt gtttgtttta attttttttt gtgaaaaaaaa 840
tgaagatagg cattttgtag acaatctgga agttctggac cggaatccat gatgtagtca 900
gggaagaaat gaccctgtc cagtaacccc aggcctcgag tgtgtggtgt atttttctac 960
ataattgtaa tcattctata catacaaatt catgtcttga ccatcatatt aatatttggt 1020
aagtttctct ctctttagag actccacaat aaagttttca acatgg 1066

<210> 1657

<211> 2864

<212> DNA

<213> Homo sapiens

<400> 1657

gattgacttg ctgggatctg agtgactagc tggatacttc tgtgtcacct gagaggataa 60
ctgtgggggc tgtgtggctg agctgtgtct ttctggctct gtgtcagccc ttgtaccatc 120
tctaccgcc tgcccgtggt ctttgcctgt tatctaacct acttgttcct ttgtccatcc 180
catcatgtct ctgcaaagt ccagattcct ccagcttgtc cttaccccag tccaggtgcc 240
cacagagtga gcatgtggac tcgggcctgg tgtgtgtatg gtaggagagg gcagaagagc 300
cccactgtct ccctctggtc attcctgac cagctgtacc ccccttctt accccttctt 360
tccctagagg accacaagct ggtgttccta caacagggcc cactgttgct cgtggccatg 420
tcacggactt ctcagtcagc agcccagctg cgggggggagc tgctagctgt gcacgcacag 480
atcgtgagca cacttacag tgcaagtgtc gcccgcactc tcgcacacaa gcagaactat 540
gacctccgcc gcctgctggc tggttcagag cgcacactgg accgacttct ggacagtatg 600
gagcaggacc caggagccct gtcctgggt gccgtgcgct gtgtgccct tgcccggccg 660
ctgcgagacg cactaggtgc gtcctccga cgttgcacag cgcctggcct ggcgctgtca 720
gtgctggcag taggcggtcg acttataaca gcagcccagg agcggaatgt gctggccgag 780

tgccggctgg acccagctga cctgcagttg ctgctcgact ggggtgggtgc accagccttt 840
gcggcgggtg aggcttgggc acctgtgtgc ctgccccgct tcaaccctga tggttttttc 900
tacgcctacg tggcccgctt ggatgctatg cccgtctgcc tgctgctgct tggcacccaa 960
cgtgaagcct tccatgccat ggccgcctgc cggcgcctgg tcgaagatgg gatgcatgcc 1020
cttgggtgcca tgcgtgccct tggggaggct gccagcttct ctaatgcctc atcagccagt 1080
gctcctgcct acagcgtgca ggctgttggg gcgccggggc tccggcactt cctgtataag 1140
ccgctggaca tccctgacca ccaccgcaa ctgccccagt ttaccagccc tgagctagag 1200
gccccctaca gcagagagga ggagcggcag cggctgtcgg acctgtacca ccgcctgcat 1260
gctcgtctcc acagcacctc ccgaccctg cgcctcattt accacgtggc tgagaaggag 1320
acactactgg cctgggtgac ctccaaattc gagctctata cctgcctcag ccctctgggtg 1380
accaaggcag gtgcaatctt ggtagtgacc aaactcctgc gctgggtgaa gaaagaggag 1440
gaccggctct tcattcgtaa cccacccaag tactccacac caccagccac ctctacggac 1500
caagctgccc ataatggctt gttcactgga ctctgatagt tggagctccc agaccaggca 1560
gtgctgggag caaccacctt tgttttttac cttctgtcta ccctggaaat gtgtgtgggg 1620
gtgtgtctgt ggccagtcac tgtctcccta agcaatgggg caaggtctga gggcccaccg 1680
atgagagaga tgggtggcagc cgccaggcga gcaggctgct ttccctgccc agtcatgcac 1740
ctccccctct ggggaaatcc ttaggcctcc ctctccctc cctctgtctc atctcctcca 1800
cttggatgat gctctagcct ctgtcaggga ctgtccctc caaacttgct tccgtggctt 1860
gcctcctagt tgaatctcag ccctgagtgt ccagatctgg ccaaggtgtc tagggtggcc 1920
cacgggggtg ctggaattgg cacttcaggg ccaggctatg cttgggactg gcctgagggt 1980
attttaaaga aaaaaactac ataaaaggcc taaaagtaag acccacaagg atattccttt 2040
gcccttcttg tacttttttc atctttaccg tgccagaaat gaccgcctt caatgctggc 2100
tgctgctaac attaatgaga aggtggcctt cagtgtccac ctgtggaacc caggacacag 2160
cacctgactg cacacagtgg ctgaaatcca gcatttttac ataggagatg cacttagcct 2220
ctaagcctcg ttttactcat ctgtgaaaca gagataagta accctctctc atgaactctt 2280
tgatgaggat ttgtaaagca aaacagactc gaactattgt gtaccaccac atagcacatg 2340
cacgtctgtc ccagactttg acaacctgca caagacaagc agcctaaagc aggagagacc 2400
tccctagggt tttgtgtgtg tgcacactac cctcactccc caactggcca ttaccctagt 2460
tctgcccttg tttgtggagt tacagcctca aggtttagc atgtgtgctg gcaatcaggg 2520

ccgcagtgtg ttctgcgct gccagagct gactcctgat ttaaccgctg gcgtaaccgc 2580
gggttgcacg catgcgtgct gaaaagcctt tcaccctcac gtggtttctt ttttaaccag 2640
tcatcaagcg aggctcgcgc gcaggccccg cgttggaataa tggcggggaa gctgaaacct 2700
ctgaatgtgg aggcgccaga agctgctgag gaggctgaag gtagtgaggg caagtgggct 2760
gcactccttt ctctccaacc agggcagaaa ggagggagga ttcgtcccat tacaataatg 2820
aaataatgat attctaattt ttttaataa aatgttaagc cttt 2864

<210> 1658

<211> 2885

<212> DNA

<213> Homo sapiens

<400> 1658

ttagaggatt ctgtttggta gttaaaaccg tattaaaata gagagggaag aaattaagcc 60
tccttgatgg tgaagagatt gggaaccacc actccagtgt tagaaaatgt caaatgacag 120
aagtgaggct atattaagtg ggaatttcca aaccacccc cctggaagga aggaatgctt 180
ggtgacaagc cttagaggag agagatgctt gtctagccca ttgcctgtgt gccaggaag 240
agatgtgcat accttgagat atagagaaga ctctagcggg gagaagcccc aggccagctt 300
gtcagcacag ggcatcggag gcccacaacc agctccaagt tctgaacagc acacagcctt 360
caaaggcttg tactgctgct catacccagc agaggccttg caccaggcct ccccatgcaa 420
atcagtgtcc ccgcagcgta ggtaaaggag ctctagctgt gctccctatg ggggaacaga 480
tataccgtgg gacactgaga gactggaaga ttgcccaaca tttatttact gatctgtgtt 540
caccacagaa cctaaggtat ttattggtat tgtttcaacc agtacgagtg attctttcat 600
ttagtgggtca tctctgcact ccaccacaga cttttgggaa ttacaagatg aaaagggcc 660
catcctcacc ctggcatagc tcagaaaatt tgggtgggga agtagggaca tagacgtgat 720
cactacacca taatttacta agctgtgaga actggagggtg catcagtgcag cagagtgcag 780
ttgagccaga ggtagaagat actgtagaca aaaggaacaa catgcgctct aggctgtatc 840
attaggtaca attttctgtc cttggggggag tctttttaac cctaagacaa aaattatgaa 900

tatagaaaga ggccacggtt catctttgca attctttcag gagaaaattt gctgcaactc 960
acttttctaag tttaaaaaaa aaaaagagta aatgatatga atatcacctg aaagaatttg 1020
aggtctcaaa cttgggagga tctttgaaca acaatcttgg ggaatgccta acagttcata 1080
ctcatttctt gatattaca gatggaaact ctacagcctt acatatattt cttttttctt 1140
ttaactactt tatactcaca gaaaatcagt gttcagcact tctaatagca ggtctagtgg 1200
aagcttgaga tcagaacaga gttccataaa gggaaactga ggacacacaa ggcagagcag 1260
taccacctta tccatgggga cctgtctgac tggaagtaag ggagaagatt ctactccaca 1320
gagaatcagg gaagggttaa actgtgtgtg tttgtgacac ttttgctctc ttgggcccag 1380
atacaggccg gaaatccttt gggttcttgt gactcaaagt gtggccaaaa ggaccagcag 1440
ctttagcttc tctgggagaa catatgagtg cagaatttca ggcctgcacc aagtttttaa 1500
acgtctgcat ttaacaagc tgctcttaat ttgcttacgt attaaaattt ccagaagcac 1560
tgttctagga ccatcttta gtgttatcca aaaacatgta agatcttttt tcaaagcaaa 1620
ttctcaagct ctaccctaga gggattgctt ctggttctct ggggttggtg caggaatcta 1680
cattttcggc aagtcctta gatccttgtg cactactagca tttgaggatt gctgccttag 1740
atgggtgggaa atctgagcag gggagggctg tgggctgaaa atgaaatgat gatgtttagg 1800
aactggcaca agcatgcttc tgctcctggg gggaaagcagt gggacagatc cagttgattg 1860
tagagaatgc agacctctg tcatgctcaa gtgtcaccct aatgtaatgg ctggagacag 1920
ccacatatga ccctctcatt gtccagtcag taagctcaat caatgacagg aaccactgac 1980
tctggtaatt aaaaacttat tgtggccggg cacagtggct cacgcctgaa atcccagcac 2040
tttgggaggc aaaggtgggc agatcacctg aggtcaggag ttcaagacca gcctggccaa 2100
catggtgaaa cccatctct actaaaaata caaaattagc tgggcgtggg ggggttgctt 2160
ataattccag ctactcagga ggctaagaca ggagaaacac ttgaaccag gaggtggagg 2220
ttgcagtaag ctgaggtcgc atcattgcac tccagcctgg gcaacaagag tgaaactgtc 2280
taaaaaacaa acaacaacaa aaacacttat tgctgggcag gttctcataa gaggccatgg 2340
gaaagccatg tcctatctca gggacacagg gtcatctggg cctctggcta atagaggcca 2400
aataatggga ctattttccc tgtgaaatcc tgaaaactaa aatggtggc gtctttatct 2460
gcattagcag aggtaatttg ctcttcttg aaatccaagg tcacgtctgc tgtctgggga 2520
ttttgatcca gggtcagtgt gggttctctt ttacaggaga gccgagtctc agaaaggtga 2580
ggtggtttgt gttggtcatt ggctacctca gattttagag cagctctacc ttgattgtgg 2640

ggttgacctt attttttttg ctgtcttctt tcttctccag gtgaggaaag aggacttctt 2700
gtatatctct atccttttgt ttccattact cactttctgt ggctgctgct gcagaagcca 2760
ctgctgactg atgtggatac ctcaatcttt ggtttacaaa aagcctaggt gtcttttggc 2820
ctctctccag gttgatagcc atggctcctg aaagaaataa aagatgatca tctttctaaa 2880
aaaag 2885

<210> 1659

<211> 3222

<212> DNA

<213> Homo sapiens

<400> 1659

agtgcagctg tgttgtcagg cccagaggct gatgacagag aagcgtgaga aaggacccac 60
agtcagagga aagggggaga actatggcgg attctgcaga catcgaacca tctaaccatt 120
tcacgatgca atgatgcacc agcaacagcc acatggccac agtggacccc gcaggcctgg 180
ccctgcatcc cgcctgcccc aggggtctggg gtccatcgga tcagcaccgc ccaccacaag 240
aaggcagtca tctgccagcc aggaggagag gcctcgccag aaaccaatcc tgccaacacc 300
ctgatcttgg acctccagcc tccaggactg agaaggaaat gtctgctgtt gcagcgcccc 360
gctgtgctgc tttgctccag cctccccagc agaccagtgt ccagtcgttc aagggaatga 420
gcctgtcagt agaggctggg ctttgtgggt agccagcagg gaaacttctc ggggagggag 480
gagggcaaag agaggccagc ctgggtgggga agaaggggtg ggagtggaga agacacagag 540
gccgcacact gagtgaggag gaccaaggcg caaggccctt ttcaccaggc tcctgtgctc 600
tcagggggaga cagggagggg ggcatctggc agaagggcct gccagccct ggagaaagga 660
gctcacagca gggctcgtga gagggcaggg actgggtggg ggggtgctacc atgtgacctg 720
ctaggaatga atctgcgtta gcgtccgtct ggctggagta gagatgcttc agcacgtgtg 780
gggctgcaca caggcacgca ggggtggaggc ccctccactc tacagcccca cagccagcac 840
ctgccttctc acctcttcta gtccagggcc cgagaagcca ttagcaacca tcctcacctc 900
agtgtgaatc tgcagctctg ccgctccagt gtgaaggagg agaaggagag caggaagggg 960

tgtccaccac cacgtgccca caggagcaag gctcccaccc tcccggggta tgaacttgaa 1020
ccccgtgac ctctgtgggt gcatctgcac agaatgcagg tcccctgtcc cccagccacc 1080
gcaccacacc agcctagcca tcctcgcgag ccgccacagg cctgggaccc cccagggcac 1140
tggaacacag cagccccagt gagcacctgg agcccagacc tggaccggag gccacggacg 1200
gcttcgaaca ggccagcccc caggaggggc ggctcttcta cagccagccc ggcactgccc 1260
gcccagcctc ccagatccag aggagctgc tccagagaga gtgggggctc cagggacttc 1320
tcccaagcaa gatgaaaaca caggtttttg cgtgaaagtt ctttcttaa tactgacagc 1380
aagtttagag cccatctcag atccctggct gtgtccatc agcccaacag ccacagaccc 1440
aaaatttaa gtagccatgc gccctgagag cccaacctgc ctggccacgc acaggccagc 1500
catggtccca ggagtgggcg tgtgcccccg acaccacaca gctgtgtccc tcccttccat 1560
ccccaccca caggcagagc tggaagatc agcaccacgg agagagacga gcatggccag 1620
tcccaggccc ccaggccgcc ctgcccacct gcccctccc tcccgaactg tcccctcaga 1680
gctgggtcct gggctgagac tccccaaact gtgacctca aggtttctca cacagctcac 1740
ctcagcctca cggcctccag ctctgccgt cactgtcccc accagactct ccctggaccc 1800
ccacccctcc agctgtctggg gcaggaaatc aagcctccga ctgacctcc tgggtgggacc 1860
cctgaagaga aaggcgtgta aggggggactc tgtgcacacc tgcgtaaggg ggactctgca 1920
cacctgcaga accgcccata cctggagccc ggctgcagt caccgtcgag aggagaggcc 1980
tggagcacag agtggatcct gtggcatggg gactttgccg ttggcagaac acgcaccctg 2040
gggggaaggg ccctggctcc atcgtgccca gcaagtacct ggcccatatc agggacatat 2100
gagtaaagga cagaccacct ggtccagtcc ccacttgcct gaggacagca gcccagaccc 2160
ccatgaatga tgaaagtcct tctctgggtt gagctgaaac ctcccttct tctctccac 2220
ccatgtcccc cgtccccctg ggaaagtctg cggtatccaa gggcagccct gggctccttc 2280
agctctccag tcccctgggt gaaagatccg cagagaggcc aaccctccct tgggtcggct 2340
atgccaggcg ggcatatgag aggccccaga cgtctgcaac gctggcccga tgcccatcca 2400
gtgagccagc cccgcgctgc ttctatccag ggagtctctg gatttgggct cctcaggcag 2460
cagagcacac atggagacgc ggagacccca gagaagaccc cacaggactg gagcccaagg 2520
ccaggggctg tgaggggacc ccagtgaggg gactgcagct gcccagctc cacggcgcaa 2580
ctgagcttca gagagcacac gcccgggccg cacacgctgg gcctcctggc ctcagcttgc 2640
ctaccctgtg aggacgacca cgaagtccat gacgttccag ccgttccgca gttccagttc 2700

ctgcgtcctc cccttgttcc tgccagcggg ggatggcatc acgcaggcat ggtgaatcct 2760
 ggcccttggg acttccctgc gccttgcaca gatcgcacag attgtggtag atggtcctt 2820
 gcaagtgtca tcctgcctga tgcatcacca ccgaggaagc gaccgaagtc agagacagag 2880
 gatgctgcca ctccccaaga atgaagccgg gcttcattcc catcacctag gctgcagtac 2940
 aggggcgtga tctcggctca ctgcaacctc cacctcctgg actcaagcaa ccctcccatt 3000
 ccagcctccc aagtagcaag gactacaggc acacaccacc atgccaggct aatttttgtt 3060
 tgtttgtttt tggttagacg gtgtttcacc atgttgccca ggctggcctc gaactcctga 3120
 gttcaagtga tctgcccacc ttggcctctc aaagtgtgg gattacaggc acgagccacc 3180
 acactcagcc ttcattcatct aataaaatct aaccaaattc tt 3222

<210> 1660

<211> 3062

<212> DNA

<213> Homo sapiens

<400> 1660

acaaacacgg cttctcctgg tacgggctgg ttacgccctc cagctgcgcc ccctacacga 60
 cgacagacgc gtccccagc ctttctcctg tctaccact tgtggcggcc atgaagggga 120
 cccccagctc cctggacacc ctgatgtgga tctaccactt ccacagctcc accgaggtgg 180
 ccctccagcc ccgcttctg tcttccctgg aactctccgt ggccgcagcc catgaatctc 240
 tggagcagag gttcagagag ctgaagtccc tggagccacc cgaaccgaag atgcagggga 300
 tgctgcctgc cccgaagccc accctggggc tgggtgttag agaagccaca gccagcctcg 360
 tgagcttcgg caccacctg ttagagatct cagccctgtg gctgcagcag gaggcgcggc 420
 gactagacgg cagcgcgggc ccagccccag acggcaggga tccgggtgca gcgctgagcc 480
 gggtagccca agccgcaggc cagggggttc ggcaagctgg ggctgcggtg ggcgccagcg 540
 cccggctcct agtccaggga gcatggctat gcctgtgtgg acggggtctg caggggtctg 600
 cctattcct gcgacagtcg caacagcagc taggcctcgg aatccccgga gaaccggtga 660
 gctcaggaca cggggtgagt taggggccag aggcggcggg gctagggagg cactgagccg 720

gactgtcccc caagagagct actcgggaga cctccagggtg acgtccagca gcagtgagga 780
ggacggcgga ccagggactc catccccgta ccagccccac ccagcgtccg aataaagccc 840
agggcggggc gagacagcca gagcttttcc cgggggtctct gggttttggc cacgccccca 900
cccttcacac tggccacacc cccgcggggg ctccggcttc acctgcccag gagcggcacg 960
ctcagagaag tctctgggat tttctgggca atgaggaaca agaagacggt ctgggcgagc 1020
aggacgttga tggagaccgt gcattttctgg ccgccggctg gagggagagc cagtgagagc 1080
gggccccgcc tcccgggagc gagcccgggt ttgggggtag gttcggggcc actgcttacc 1140
ctgcgccggc aggaagtagg cgagcagcac caggcccag atgagcacac agggcacgat 1200
gatgttaatg acgtagaaga gcggcttccg gcggatgatg agcgagtaga tgacgtcagt 1260
ctcccctggg ccgtcgggtg cgccaccgtg gtggcggcgg atcacccccg ggcagaagtc 1320
gatggccac tcgccgttct ctgcgggacg ggggcacggt cagctggctg tcagagcggg 1380
gcgccccccg agctgacagc gggctgaaga ggaggctgcg gctgtctgca ccagggtcat 1440
gggccgtcag gatgggggca attacggaca gaaaagggca ttctcgttga gggatatgaa 1500
agccagaagg caggactaga gtaacaatcg agaatgattt caggacaggg gtaagctaaa 1560
cccagttgtg gaagtcatcc tccagtgtcg ttgggtccggg gcaagcccac cgtggaagtc 1620
ccctctcttg acccgtcta gaagcgggtt tttctgagca ggcaggggct tcaccagtat 1680
aggcctctgt gtcgatgtcg atcttgttga tggctttgcc gtcgttgtct acggcaaaag 1740
tgaactccac ctcttcggca ttgtacgtct gagagctgcg gagccagggc cgggagccca 1800
ccccagaagc tctgacctgg gccccggcct caggcccggc cctggaagct gggatctagc 1860
ggggccgcga tccaagccc accccttcac ccaagcccag cccgcacgcc tctgttccca 1920
tctgtacctc cggccgcgct ggagcgtccc acccagtgcc tacgcctggc tccgcctcca 1980
gcgcgaagcc ccgccccgag ggcggtgctt cccggttgcc cccgccccat aaggcccccc 2040
cccaacaata atcgtccggg cctcggagta gctcttccca ccgaaaata agcgaacagt 2100
tctgccaatc gaaggggaag taggtgacct ccaactgcgc gacgctgcgg tagatggccg 2160
gaggcagcca cgtcacggag ccgccctcgt agacagcac gttggcgtcg taggccactc 2220
cgaactggcc atcaatactg tgggctcggg gaaaccgagc tttttgcaca ggtctgcacc 2280
ctctcagagt acccccttcc ccaaccaagt ccagcccgc ccccaggccg gcttccctcc 2340
agcctggcgt ctggccccgt tctcacttgt tttccagcac aatctctggc agccacacga 2400
gttctgaagg gactcgcagg gtttctatac ccccaaagtc gtccttgctg tagttgagtc 2460

ggtaatcctg ccaatcctaa ggggtggggg atggaaggcc gcgtgccctg catctccac 2520
 ctggcgctgc ctgggagggg tttgggggaa aaggggtgcc ctggacaaga cctcacacca 2580
 ttccccagat ttgactcacg attccaatcc agacgctagt ggtgagagtc tcctcttttt 2640
 cattctgcag atgggagatg gggatgattg aagtgaatt tcagggccag aagtgaatt 2700
 taggacagag ctgagcggtt ggggccagaa gtgggatttt tggcttaaga tgagggtggg 2760
 ggtagcttac cagtgaatg agattcgta gggtagacct gaggtgatg gtgacagtat 2820
 cctcaggctc ccgactggc cggcttcctg ggtcatagtt gttgaagaga tgggtgataaa 2880
 gacgcagttc ctgcttcttc cccacacccc tgcctgcgat ggggtcaaga aggaagggtc 2940
 attggcaatg aagaggctgg agcacctctc tcccctctgc ctcccctggg tcctcacagg 3000
 cctctgaggc tgtgtactat cagtatctgt ctctaaacc aattatgctg tgcctgggaa 3060
 cg 3062

<210> 1661

<211> 3022

<212> DNA

<213> Homo sapiens

<400> 1661

catatatata tacacacata tatatacaca tatgtacatg tatatgtgta tgtgtgtata 60
 tgtacacata tatacatgta tatatgtata tacacacaca tacatatata catacacatg 120
 tatgtatgtg tgcataact cacatacaca tatacataca catgtatatg tgtgtgtaca 180
 catacatata tgcatacaca tgtatatgtg tgtgtacaca cacatatatg catgcacatg 240
 tgtgtgtgtg tgtgtacaca cgcatacaca cacatgtata tgtgtgtgtg tacacacgca 300
 tatatacaca cacatgtgtg tgtgtgtgta cacacgcata tatacataca catgtgtatg 360
 tgtgtgtaca cacgcatata tacatacaca tgtatgtgtg tgtgtacaca cgcatatata 420
 catacacatg tatgtgtgtg tgtacacacg catatatata tacacatgtg tatgtgtgtg 480
 tacacacgca tatatacaca cacatgtata tgtgtgtgta cacacgcata tatacataca 540
 catgtgtgtg tgtgtgtaca cacgcatata tacatacaca tgtatgtgtg tgtgtgtaca 600

cacgcatata tacatacaca tgtatgtgtg tgtgtgtaca catgcatata tacatacaca 660
tgtatatgtg tgtgtgtaca cacgcatata tacatacaca tgtatgtgtg tgtgtgtgta 720
cacacgcata tatacataca cgtatgtgtg tgtgtgtaca cacgcatata tacatacaca 780
agtatatgtg tgtgtgtgta cacacgcata tatacataca catgtgtgtg tgtgtgtgta 840
cacctacaca tatatgtata cattgtggtg caggggtaca atcatagctc actgcaccct 900
tgaacttcgg ggcttaagtg atcctgctgc ctcagcctct tgagcagctg gggcaacagg 960
catgtgacac cacaccaata ttttttttgt tgtttttgag acacggctctc actctgtcac 1020
ttaggttggg gtgcagtggc acaatctcag ctcactgcaa cctctgactc ctaggttcaa 1080
gcaattctcg tgcctcagcc tccaagtag ctgggattat agacatgtgc cactatgccc 1140
agctaagttt tgtattttta gttgagatag agttgtgtcg tgttggccag gctggtttcg 1200
aatccctggg ctgaagtgat ccacttgctt tggcctccca aagtgctggg attacatgtg 1260
tgagccaccg cgcctagctc taatTTTTTT ttttttttaa tatttgtaga gatgaggtct 1320
cgctaatttg cccaggctgg tctgaactc ttgggttcaa gtaattctcc tgcctcagcc 1380
tctcaaagtg ctgggattac aggcatgaga caccgttccc ggctggtggg agccacgata 1440
tgtcaccag gctggagtgc aatggtgtga tctcagctag ctgaaacctc tgccttctgg 1500
attaaaccaa ttctcctgcc tcagcctcct gggtagctgg gattacaggt gtataccaca 1560
acgcccggct aattttttgt atttttaata gagacagtgt ttcaccatgt tggccaggct 1620
ggctctgaac tctgacctc gtgatctgcc ctctttggcc tcccaaagtc ctgggattac 1680
aggcatgagc caccataccc agccactctt gattaactta atggaaatat ttacagagat 1740
tctttctctt ctgggttcta acgtcttate tgtaacctct gcaggtaata catTTTtctt 1800
cctgatgata gcatttctat ggttgctttc acttgcaaact cctctaatac ttattttattc 1860
catTTtctgat tggcattaga cataattctc aatttttagt gacagcactt cttttaattt 1920
acatataaat cgactttgtc ttgaaatgtg acattgacta gaaggatgaa acttctaaca 1980
tgctgtagaa catagtttga ctggctaatt tattatttag aagaagctaa tattgccatt 2040
atgagggact taggtgactc tgaagaacca gtttcatttg taatatttgc aatgttaaact 2100
cacagacatt gccaacgtga aatagtttcc atatgctgtg ttctcaatac acaccttttc 2160
caaagatata ccaagctgta gtcttagaag actgtgattt ttcttatttg ttctcacggg 2220
aatttgggga gctatgctgg atctccataa aatgagctcc agaaagacac gtgtgcacac 2280
acacacactc acacatgtac cacaccgcac ttgactctgt ttatttggga cccatgatta 2340

tcagaaatgc tatttttaac aaatacttct gagaaataat ctgaacactt aattggatgc 2400
 aaaagagtgg ctatttacta ttctaccctt taattagcat aatcagtgtt tccagcagca 2460
 aaagcaattg gaaaatcgct tgttttgtta ggttcattat tctcccttag catagtgtgg 2520
 catcagcatg gctattattc ttaaattgcc tctttaaaac aagagctggg gcttcttaca 2580
 ggcaattcct aactcttggg ttttgtagag ggtccaaaac tctttagaac ctataattca 2640
 aggaaaggct ccactttggg tttgcatttt gtctgggtctc tttgggtgac agaatttatg 2700
 tcacaagggtg cacatgtttt ggggaggctc atggacagcc catcgctctt gtgctttggg 2760
 aggaaatatg tgcagttatg gggaaggagt tagttactca tctagggaac aattgggtag 2820
 aaagagatgg actccctgta tttgaaattc agaactcaag cttgggtcta agtgcttcct 2880
 tgctttgctg tgctccacgg gagtcactga gcagaaggaa gcgagttgcc tgagattcct 2940
 caaagcccg c agcccttttg gaggttacat tgttattctc agagccttta tgatacataa 3000
 taaagaccta gcttggacca ac 3022

<210> 1662

<211> 4210

<212> DNA

<213> Homo sapiens

<400> 1662

tatgtacata atgtaaaata tcaaacagcg ctgcgcagct tggtataaaa atagttctta 60
 ccctcatttg ccccaccttg gaggcaacca ctttcaactc ttgtagctgt ttttttcaaa 120
 ttctaccccc aaatcttgaa ataacctgca tataatgcta cttcttgatt tttttggttt 180
 tatgaatttt ttattgtttc cattaaggaa gacaaagggt ttggctcttc cccttcattc 240
 cctacctcat gaccacaca ctccccacat ctccccaggg tcattggatc attattttgg 300
 ttagaccaat atttaccatt tacttatatt attttttgag acgggggtctc ccctgtttgc 360
 ccaggctgga gtgcagtggc gtgatcgggc tctactgcagc cttggcctac aggtcaagc 420
 ggtcctcctg cttcagcctc ctaatagctg ggaccgcatg cgggtaccat cacacctggc 480
 tgatttttaa aattttggta gagacggggg ctccctttgt ttcccgggct ggtctcgaac 540

tcctgggctc ggggtgtcct cttgtttcag cctcccaaca tgttgggatt acaggtgtga 600
gccagcacat ccagccacca tttacattat tagttctgat ccatttagac cagcatttct 660
caaagggaga gggttccatg gaatacattt ccacaagaca tcagtagggg taggtctgtg 720
gtccaatacg tttgggaaac accaaattaa agttaaaaca atggttcctt cctgtattac 780
tcatcagagc ctttaatagg caaatgtgcc tcaggaggga catggggatg tggaggttca 840
atgcttcccc aactttggcc atgaaacctt tcttgtacag atcttcagtg gaacacagtt 900
tgggaaacac tgtttttagac tcatcatctc acaggtaaag attttgcaaa gttagagact 960
cttttagcttc tgtcagataa tccctcattt ggagaatgag aagataatga aactgggaag 1020
gaatggaact gctcgtgggg ctgagagcag tggctcgcgc ctgtaatccc agcacttcgg 1080
gaggctgatg tgggcagatc acctgaggtt gggagttcga gaccagcctg gccaacatgg 1140
tgaaaccccg tctctactaa aaatacaaaa agattggcca ggcatggtgg tgggcacctg 1200
tggtcccagc tactcgggag gctggggcgg gagaatcgct tgagcctggg aggcggtggt 1260
tgcagtgagc caagattgcc tctgttact ccagcctggg caacagagca aactccatct 1320
caaaacaaaa caaaaaaacc aaaaatcaaa acttaaaaaa caaaaaactg ctggtgggct 1380
gggtgtgggtg gctcactcct gtagtcccag cactctggga ggattgcatg agcccaggag 1440
tttgaggctg caggagctta tgatggtgcc actgcactcc agcttgggca tcagagttag 1500
accttatctc aaaaataaat aaacaaaggg aaggaaagga agaagaaaat gaaaaactgc 1560
tggtggatga acaacagcct cattcagttg acttcttttt ccttcaccaa gactgactgg 1620
agctctcccg tgtcagctcg tagcacagaa ggtgaagagc ctgctgtggg gccagggctt 1680
cccagattac gtggccctt ttggaaattc ccaggcccag gacatgctgg actgggtgcc 1740
catccacttc atcaccagt cattcaacag gaaggtaaag gggagaaggt acaggttcca 1800
tgctagtggg ctctgtcttc cagggtggtgt gatgaaggca gccggggaag ccagctgtta 1860
aggaggcagg atggccctga gtgggagcgc gggctgaatc ttggatactg atttttgccc 1920
cttgtttagca atgttgctc tggccagcag ttttatggct ttgagcctct gttttcatct 1980
gtgaaatggg aacgctagtc aatagttagt gaatggcctc atggggcatt gagagggtta 2040
agtgaggtaa catttatgtg gccctgggca tgggtgcctag tgggccataa atgggaacct 2100
ctgtgatcct catcctgttg ctaccatcat tgtgattgct ggtgtcccc gagccctctc 2160
caggcatctc atgacacgat agacgaatgt tgagtcctgt atcaaagact gagactgact 2220
tccgtgcatg tggctctccc acccattgtc ccctgttcta cacaggcagc ccacacctga 2280

gagttttcac tgccacagtt cctcacagag ttgaatggaa gttgacaatc ctacagatag 2340
gttccccggtc acacatgatg cttctgcccc cctttttctt ttgtcttagc agtcagcgtg 2400
tgggccggcc ctggcccagg ggcgtgctct ccatcttagc ctgtaattgc ccagcttggt 2460
cttgtcacgc tttcttcaga cctctcatta tccgctccga atatttctag catgggcata 2520
acgggggtga ggactgctca cttctctgat ccgccctccc accgaggcca gcagagaccc 2580
gggattactc agtcctgcc gttccactgc gaagtcttga ctcaactctc ccaccagaac 2640
caggcacatc gcttctggct tcttggccat ggggtgaagat gtgcagttat tactcctcct 2700
cagaagggaa gacatgggtt gggaggagag gcagcagtgc gcacatggca ccgtcagggt 2760
ctgtgctgat cctgggtgct cagagggcct gcagcagcag gttttgtacc aactctgccg 2820
gcaaccagg tagaggcagg cagcagcacc tgctaaactc agtttccacc agctgcatgc 2880
tgcattgtct cctaagaaca gggatttcga gaggattgtt cagtctgcat ggtttttaaa 2940
ggcggttcca agctaaggaa ttccatcagt gcttttttcg cagccaccaa atttagcagg 3000
cctgtgaggt tttcatatcc tgaagagatg tattttaaag cttttttttt tttaatgaaa 3060
aatgtcaga cacacacaaa agtagaatag taccatggag tccccacgta cccagcctgc 3120
agcttcaaca gttaccacat ttgccaaacc gagagactgc caaggcagga aaaagccctg 3180
gaaagcccac ggcccctttt tcccttgggt cagaggcctt agagctggct gccaaagcag 3240
ccaaccaaag gggcagctca gctccttcgt ggcaccagca gtgttctga tgcagttgaa 3300
gagttgatgt ctttgacaac atacggacac tgcttgatt acctagatgt cacatcttaa 3360
ttgccaatg atgaaattag gtaaataaaa agaaagcact taaatttccc cttagagcat 3420
tttaacatga catgcaatca ggttttgtct gctaataatt atttctcccc ctccatccct 3480
cccaccagtt tctttcctga agtctgtgag gccgctataa acaggtagat gaagttagag 3540
cagttatggc cctaaatggt ccacagttgg gtattggcac taccgcagtt tcaggtgatg 3600
tcggcathtt tagaaatagg aggagatgga aaaattacgc ttcagctggt aaaaatattt 3660
ttggggcatt gagttacttt aaaacacgta tattctctaa gctgttttta tctgaacttg 3720
tagagtctat tcattttctt gttcagaaca ttttgtaata tgtgaaacct tttataatta 3780
aaactctgaa ctgcagatta agtctgactt gcagttttgt aagattctaa tggattaaca 3840
gcattttgtt ttgcaggatt cctgccagct cccagggggt ttggttatag aagtgaagtg 3900
gactaaatac ggatccctgc tgaatccaca ggccaaaata gtcaatgtaa ctgcaaatct 3960
aatttcatcc tcctttcctg aggccaactc aggaaatgaa aggacgattc ttatttccac 4020

tgcggttact tttgtggatg tgtctgcacc tgcagaggca ggcttcagag ctccaccagc 4080
catcaatgcc aggctgccct ttaacttctt cttcccgttt gtttgacaat gctcagatgc 4140
atcagttcct taatatacac gtgaaatttg aaaactgtac attcggtgag attaaatttt 4200
atatacaact 4210

<210> 1663

<211> 3179

<212> DNA

<213> Homo sapiens

<400> 1663

gttaacttaa aaacataatt tataaattta gacaaagaaa gaggagactt tatttcttat 60
aaagggttat agccttcaaa gtggctatct cacaggctgg gaagctcagc cttcagcaga 120
agcccagaga caagcatttt gaaggcagag gggttgggat ggagctttat gctgaacagg 180
ttgactaaat atacatattc aacaggttac aggaggagct atgaatattc atgagggttg 240
tcctgacaca tgcgtattga acaaacatac atgtaacaca taacctatgt tcactttggg 300
atggagactt aacatttcaa tgtattacag ttaggcccta cacatcaaaa ggtcatttca 360
ggacacaaaa gtcacaagt acacaatctc tgtaaactag tcagaaccag tccatggttg 420
gtggtcttat caggaaaaag ttactaaaat tagtctctca tccaatgaaa gctgtagtta 480
tggctggtgg aacaggggtt cagttgggca gagtctatga gcaggatgat ttgcaattgt 540
ttaaatattg cttatcttga ggccagtgtc tgtttagctg ctggagaaaa agaaaatcct 600
tgtggcagtt agagcatagt ttcttcctta ggtgtaggag tacatgactt cccctcacct 660
ggcatggcct taggtcctgt ttataattcg gtatcttatt gccacaaaga atctgttctg 720
tgagtcatgt gatctctatt ggaacattaa tgctgctcag ttgttgtgtc taaaccataa 780
aagagaaggg gagtataatt aggcatgtct gacctctcat catagctggg aactaagtct 840
ttaaatTTTT ttctggggtc ctcttggcca caagggggtc catttagtca gtgggggcct 900
tgggatttat ttttagttta cattgctaag tgacagagct ttgcttcttt cactctgagg 960
ttagtgggtc ctctgctgtg ccacattgtc ttccccagaa gctcaaactg gatgccagc 1020

cctcagtgtgta caaactcaag tatgcaagaa atacatcttt attcttttat gaatatacct 1080
aatattatg ttggaagggtg tcagcaatga atttgatcac tttgggtattt ctctaccttt 1140
aaagatatgt ttacatttgg ggtgggatga aggtttgggtg gaggggaagg tggtcagggtt 1200
gggccaaggt attgggaaat ccatttgttc ctcatgtcag ctgtttgagg aggcaccaac 1260
ccagatgtcc acagttcctt ctggccttcc tttaccgata ctgatgcacc tgtgcctcct 1320
tcctgtgtgc atggccatt tgtgccagc atctccctgc tattttgggg cactccagg 1380
gtctgggaag ttctgtaggc ttataacata cagtcattct tctcccagc ttgctgcctc 1440
cctgagacac agaggtagag aagtaggaaa ggacctaccg taccaggcc tttgccctct 1500
cacttttcat ccctcttct tcccaccagt ggagggtgt gtttctagtc ttccaggga 1560
gctcctctct cctcaaacca ttttcttcca aatactttgg ctttattcca aatcctctct 1620
agtcctctga gatTTTTTTA taacacaaaa cacaacttac agaagttgtg ttgttgtttt 1680
gctgtttatc ttgtcacatt atttctctac cttgaggcaa caggacaagg gcctgctgtc 1740
cagcgcacgg aggcagggtg gaaggggtag gggaatacta agaaaaaaaa atttctcgat 1800
cacatgtgta ccacatttaa ctttatcagg tccttgtgag gtgagtatct gtgtgtcatt 1860
gttctgaaac taacagttag gggacaaagc attgatagga gttcttaca tatatttggg 1920
aactcgcagg tgagggcctc tcctgcctga ttggctttc aatgtaccat cccaaccac 1980
ccacctcaat ccccatggct tgatcctgct gtctcggtga tcaagctttc agttaagaat 2040
tgggtgataa tgagctagtt aatccaattt aaaaaaaaaag aattaggatc tgggctcaga 2100
agccccacag ctgtgaaagc ctggccgtag attactagtc ttctagatgt agaaaagatt 2160
tttcttttct ctggctattt aagtctttat cagtcaccct gcctcagtta tcaacacaca 2220
ccctagagta aatctgttcc ctgggggtgg aaatagaagg ggcattgtcat tgtacatcca 2280
cactgatgaa aggaaaggaa acattaagat ggcttaagt gaaaggcac atacggcttg 2340
tactagagag acaccatgct aaagcaaac atcgtttaaa aaaattctga cttatcatgt 2400
gctcagaaat gctcaaatgg gtacaaccat caccaagggt gggatgggag ggcaggggga 2460
aaaaaatatg aagcatcaaa aaaaattctg atttgtattt gtgaaattca atagtaaccc 2520
tattcattaa ctggatttta aaatcatttc aaagcacatt cggctttcaa aagatgtttg 2580
tttaataat acagttggct tttgggtcaaa aaatgaagtt tcggtaatgc atagtaacaa 2640
ctgtagtgtgta attactggcc acaaaatacc aggtgccaga ccaacccttt tcgaaccatt 2700
taagagaacc aagccaagca aaaatgcccc gcctagcctt acccagaagt tcaaaagctc 2760

agcctttgtc accaggaaaa aattaattca aagagcaaag ctgaactttc tcacgtttga 2820
gtgaaagagg gctgcttaaa gagagtttaa accaagccag gttcaagggt tttttctttt 2880
ctttcttttt agattttctga cttcatatct gtgggatcca cacagtgggg aggtactggc 2940
cttggaatcc atggttcccc agctatcatt ttactttaga attacagtgt tctctgttag 3000
tgtcaaggga atgaacctga cgagaaaaga ccaaacatag gactgttaca gggaagaaaa 3060
atatgaaaag acctaaagat gcacgtcctc attatatgta aggaatctat ttcctagaat 3120
cctataaaaa gctcaagtga atttgcttca gttaataaat gtgatttaat tataatgat 3179

<210> 1664

<211> 3192

<212> DNA

<213> Homo sapiens

<400> 1664

actcacagggt tgggtttgat cgcatgcgtg tcggagagga gagagcagag agagacacag 60
gaacaagaac agcaaagggt agagcagacc tgcgccagggt gcgcacaacg gccgtgtcca 120
cctcccggcc ccaagatggt gcttcccaca ggcagccacg cgtagcagcc agagacagct 180
ccagacatgt ggctcttctt cgggatcact ggattgctga cggcagccct ctcaggatcat 240
ccatctccag cccacactga ccagctcaac accagcagtg cagagagtga gctctgggag 300
ccaggggagc ggcttccggt ccgtctgaca aacgggagca gcagctgcag cgggacgggtg 360
gaggtgcggc tcgaggcgtc ctgggagccc gcgtgcgggg cggaggccgc ctctcagctc 420
gccccgccga cccctgagct gccgcccccg cctgcagccg ggaacaccag cgtagcagct 480
aatgccactc tggccggggc gcccgccctc ctgtgcagcg gcgccgagtg gcggctctgc 540
gaggtgggtgg agcacgcgtg ccgcagcgac gggaggcggg cccgtgtcac ctgtgcagag 600
aaccgcgcgc tgcgcctggt ggacgggtggc ggcgctgcg ccggccgcgt ggagatgctg 660
gagcatggcg agtggggatc agtgtgcgat gacattggg acctggagga cgccacgtg 720
gtgtgcaggc aattgggctg cggctgggca gtccaggccc tgcccggctt gcacttcacg 780
cccggccgcg ggcctatcca ccgggaccag gtgaactgct cgggggccga agcttacctg 840

tgggactgcc cggggctgcc aggacaacac tactgcggcc acaaagagga cgcgggdcgcg 900
gtgtgtctcag agcaccagtc ctgggcgcctg acagggggcg ctgaccgctg cgagggggcag 960
gtggaggtac acttccgagg ggtcttgaac acagtgtgtg acagtgagtg gtacccatcg 1020
gaggccaagg tgctctgccca gtccttgggc tgtggaactg cggttgagag gccaagggg 1080
ctgccccact ccttgtccgg caggatgtac tactcatgca atggggagga gtcaccctc 1140
tccaactgct cctggcggtt caacaactcc aacctctgca gccagtcgct ggcagccagg 1200
gtcctctgct cagcttcccg gagtttgcac aatctgtcca ctcccgaagt ccctgcaagt 1260
gttcagacag tcaactataga atcttctgtg acagtgaata tagagaacaa ggaatctcgg 1320
gagctaatagc tcctcatccc ctccatcggt ctgggaattc tcctccttgg ctccctcatc 1380
ttcatagcct tcctcctctt gagaattaaa ggaaaatatg ccctccccgt aatggtgaac 1440
caccagcacc taccaccac catcccggca gggagcaata gctatcaacc ggtccccatc 1500
accatcccca aagaagtttt catgctgccc atccaggtcc aggccccgcc ccctgaggac 1560
tcagactctg gctcggactc agactatgag cactatgact tcagcgccca gcctcctgtg 1620
gccctgacca ctttctacaa ttcccagcgg catcgggtca cagatgagga ggtccagcaa 1680
agcaggttcc agatgccacc cttggaggaa ggacttgaag agttgcatgc ctccacatc 1740
ccaactgccca accctggaca ctgcattaca gaccgccat ccctgggccc tcagtatcac 1800
ccgaggagca acagtgagtc gagcacctct tcaggggagg attactgcaa tagtcccaaa 1860
agcaagctgc ctccatggaa cccccaggtg ttttcttcag agaggagttc cttcctggag 1920
cagcccccaa acttggagct ggccggcacc cagccagcct tttcagcagg gccccggct 1980
gatgacagct ccagcacctc atccggggag tggtagcaga acttccagcc accacccag 2040
cccccttcgg aggagcagtt tggctgtcca ggggtcccca gccctcagcc tgactccacc 2100
gacaacgatg actacgatga catcagcgca gcctaggccg gggccagccg aggtccttgg 2160
ggtggctctg accctctggc ctctgtctct acctactccc tttccccctt cccaccctcc 2220
cagctcacct ccccatggag ctgagaggcc tcccttggag agatggaagg aaacgttata 2280
ccttgtatcc ctcggtctcc atccatcaag ccaaactgc tgccacagcc ctccccggc 2340
cccagatagc agccccaggg aggatgtgc ctccaagagg tgtgagccct ctgtctcggg 2400
gatgaacaag cagagtctgg gctacctctt gacagctggt ggaggggagt tggggagctg 2460
gactggatga ctctggaggc cccttccaaa cctcaagtgt ccggcgcttt gattgcctga 2520
gtttctgaca cttcagggcc cagaggtcct gcgaggggca gaactggacc cccatgccag 2580

tgctgctgca ggagggccca tatactaggg tctgctgagc tgttgtcact gatcgggtggg 2640
 cgctggggggg gtagggtagc acaccagctg tcccaggctt tgctccgggc ggtaactgca 2700
 cttgggcagg gaatatagcc ttcctgggca caactagctg acaatgacag gttgactgtg 2760
 tcccccaac caaggagctg gggcccaagg ccagtcctgc cccagagaca ctccaagtcc 2820
 gccaggggca cagaccagtt ctgcagtgc tgctccctgga caatgggtct ttattctgag 2880
 tttcctatgg ttacaaaga gggccccagc ccagccccac cacagatccc agagataggg 2940
 gccagtcctc catgggggca aggagcatag agatgttttc caggaagggg ctcagaagct 3000
 gcactaggcc ccgagtcctc atgtgtctcc ttgaattgat gaggatgctc ctgggaggga 3060
 tgcgtgacta tgttgtgttg caccggggc tgcaaacgtc tccgtgcagc cccagagag 3120
 agggccatgg gctcagacca ggctttgttg tcctgctctg agtatcctga gattaaactg 3180
 aattgctgaa tg 3192

<210> 1665

<211> 2922

<212> DNA

<213> Homo sapiens

<400> 1665

gggctaacaa tggactttgt gtaattgttc taatgctaata aagcaactgc tgggacactt 60
 cccgtggtaa attcctttgt gggttcgggtg gtcttatacac acatgggcct caccaagatg 120
 ctgggctgga gagaacgtc actgtgactc tcccaggctt catgaaattc ccccgactta 180
 gaagcagttc tgggcaaaaa cacactgtta gaggaggatt tgctttcttc acgggtgcttt 240
 cgcaagttag gcctcagatc tgcgctcttc aaatcctaca taaagagccc agaggttctc 300
 cccatgctca gcactgggct cgctttcctg cagaggaaac gatggcagggt agagcttaag 360
 aatgacgttc tccccagggt cggccgagag tgctgtgcc tgaattgata gtggcaggac 420
 gagaatagta gagacacggg tgattaaaca gtgatgccag acagtgtggg gacagcagca 480
 tctttccatt tgaagggtct acatatacca cacagaccac ctatacctca gctgtcttcc 540
 caccctaccc tgctctgggg cttgaccacg tggctctgagc cttagggtca gttccatgca 600

ctaggcgctt gcacaggcca acagcaacct cttccattgg ctccaacttt agaatacacc 660
cgaagccttg cttctccaaa cagctcattg tgaaataaca gcgcctcact aggtgtcgct 720
ttacagcaat gatgtatgac tgaaggctac ctctatcata aatgtagcat cctcaactac 780
attcttttca aagtgttctt ggaaacccat catcatccct tgagggtgga ttttttttct 840
ttttggagaa agccaaagcc actgggctca tgcctgggtgc atgacatggg taatcagttt 900
caggtttcaa atcatgtgtt ttcacacaca ttcgtttgtc ttttccttgc gtgtttcctt 960
acttgggtaca aatagtttga acaataacag ccacaattca ctgggttaact taaatatatt 1020
aggcaggtgt tagaataagg agctgcaatg tacggactac tttgaaggac aacagtattt 1080
ggatgtataa cgttcaacat attcatttta aagtaatgtt actgctatat ccttaggcac 1140
ggtaagctga ggatattgtg agtgttcgca aatatacaga gaccaccctc acatgtagaa 1200
ccgtagaatc ctagagttgg ggaaaagagg tcttggggga catctggacg gctccctcc 1260
agagtagaac cttctcccc gtgggttcca cattgtcttg tggggggcag agcatggtac 1320
ggtgtgcaag aaacaagctc tccaagtcac ctcccccat acctccatct ctttatctgg 1380
aaaaggaggg gagtcatcca catgaccttt gaaagcattt ccagctcagt tactttggcc 1440
aaggccagtg gggctgtgct gccgtaatgg ttatgggctg ttggctcatc tcttttgttt 1500
catggctgct ggctcctgcc tctcctcctt tgcaacctca tctagatatt ttttgatcct 1560
cttccctcat gagcccagaa cttctcaagg ccatgtaagc accacttgac cattctttcc 1620
cactcgtttt ttactttctc ttctattctt tcttctgcc tccatgtttt tttgctggtt 1680
tgttttcttt tctgtctttc ttcatccac tagctcaaat gccttgggga tggagacggg 1740
gtagagaaag aaataagaat aagccaactc tgtcctccca ggcccagcag ttctgacctc 1800
tgcccagctg tcaccacccc acagcattcc ttgactctgc cccacttctt gtccaatctc 1860
cattgttctt atttctcaag gtctagccct ctcagctcga tgcctgaggt tgggaatgag 1920
agtctctgcc cttctgaatg tttcatcctg tgactcacc tgatgtacca ccgagaggcc 1980
tcttgaatct tcatcaagca caatgccctt ctcactagct gtccctcttc attcagccct 2040
gaagggttaag tgacctggtg ccaattcgat gtacctcttg agaatcaca gctgcttctc 2100
ccaccgtcct gcaacatgca cggagtcact ctgcaatcca gcagcaattc agataatgcc 2160
aaagtctttt atagaacaca gaacgttgtc cagaccaggt tagcactgac tgtacagcct 2220
catgaccaa gccgggccag agccttgtgt gtaagtgagg aggggtccagc cagcatgaaa 2280
aatgaaggac aatgaactac atcggaagta tttctgggggt gaggtattgt ttttggacat 2340

ttataagact actgagacgt atgcaatatt aagtggcttg tgtctgagta gggaaagatg 2400
 atgacatatt tcccaaaaga aaatgtggtt tagagggagg agaaaggcag cacagctctg 2460
 gaaaaaaaaat gtttccattc ctggcctttc tacagcacia ttgcacacct cgaggtcttt 2520
 ctagaagtca aacatgtttc ctctcagga actgaaagta tttctgtcca agtgtgagag 2580
 actttgaggg agtttgattt cttttattat tcatttgtgt ctaagccata atatttaatt 2640
 ttctgtcatc ttctagctat atctttgatc acttggggat ttaaataga gaactcctct 2700
 cattttatcc tcaagaaaat atgaaatata atttgcttta tagagcaa atttccatgt 2760
 tacagatata tgttgattag attatttctc tactgtatat acctagaagt aatttcatta 2820
 acataaaaaat tttatacttt aaatacatTT gtggataaat ttgcttttca ttctattcac 2880
 atgcaagaaa actaaaccga ttgaataaaa tcattttatc at 2922

<210> 1666

<211> 2967

<212> DNA

<213> Homo sapiens

<400> 1666

aaaatacttt ctgagagtcc tggacctcct gtgcaagaac atgaaacacc tgtggttctt 60
 cctcctgctg gtggcagctc ccagatgggt cctgtcccag gtgcagctgc aggagtcggg 120
 cccaggactg gtgaagcctt cacagacctt gtccctcacc tgcactgtct ctggtgactc 180
 catcagcagt ggtgcttact actggagctg ggtccgccag taccagggga agagcctgga 240
 gtatatggg tacatctctt acagtgggaa caccactac caccgtccc tcaagagtcg 300
 acttaccatg tcagtcgaca catctaaca ccagttctcc ctgaagtga cgtctgtgac 360
 tgccgtgac acggccgtat attattgtgc gagatctttg actatgtttg ggggagttgt 420
 cgctgtaccc tccttctttg actactgggg ccagggaacc ctggtcaccg tctcctcagc 480
 ctccaccaag ggcccatcgg tcttccccct ggccgctgc tccaggagca cctccgagag 540
 cacagcggcc ctgggctgcc tggtaagga ctacttcccc gaaccggtga cggtgtcgtg 600
 gaactcaggc gctctgacca gcggcgtgca caccttcccc gctgtcctac agtcctcagg 660

actctactcc ctcagcagcg tggtagaccgt gacctccagc aacttcggca cccagaccta 720
cacctgcaac gtagatcaca agcccagcaa caccaaggtg gacaagacag ttgagcgcaa 780
atgttgtgtc gagtgtccac cgtgtcccagc accacctgtg gcaggaccgt cagtcttctt 840
cttcccccca aaaccaaggg acacctcat gatctcccgg acccctgagg tcacgtgcgt 900
ggtggtggac gtgagccacg aagacccga ggtccagttc aactggtacg tggacggcat 960
ggaggtgcat aatgccaaga caaagccacg ggaggagcag ttcaacagca cgttccgtgt 1020
ggtcagcgtc ctcaccgtcg tgcaccagga ctggctgaac ggcaaggagt acaagtgcaa 1080
ggtctccaac aaaggcctcc cagccccat cgagaaaacc atctccaaaa ccaaagggca 1140
gccccgagaa ccacaggtgt acacctgcc cccatcccgg gaggagatga ccaagaacca 1200
ggtcagcctg acctgcctgg tcaaaggctt ctacccagc gacatcgccg tggagtggga 1260
gagcaatggg cagccggaga acaactaaa gaccacacct cccatgctgg actccgacgg 1320
ctccttcttc ctctacagca agctcacctg ggacaagagc aggtggcagc aggggaacgt 1380
cttctcatgc tccgtgatgc atgaggctct gcacaaccac tacacacaga agagcctctc 1440
cctgtctccg gagctgcaac tggaggagag ctgtgcggag gcgcaggacg gggagctgga 1500
cgggctgtgg accaccatca ccatcttcat cacactcttc ctgctaagcg tgtgtctacag 1560
tgccaccatc accttcttca aggtgaagtg gatcttctcc tcagtgggtg acctgaagca 1620
gaccatcgtc cccgactaca gaaacatgat caggcagggg gcctagggcc acctctgtg 1680
gggtgtccag ggccgcccag accccacaca ggagccgtgg gccatgtca gccatcacc 1740
aggccacacc tgccccgac ctcaccgcc tcaacccat ggctctctgg cctcgagtc 1800
gccctctgac cctgacacgc ccccttcca gacctgtgc atagcaggtc taccacagac 1860
ctccgctgct tgggtgatgc agggcgctgg gggccaggtg tcccctcagc aggacgtccc 1920
tgccctccgg cccgccaggt gctcacaaa aaggaggtag tgaccagcat cccaggcccc 1980
cactcaggca ggacctgcc ctggagccaa ccctgtccac gccagcctcc tgaacacagg 2040
cgtggtttcc agatgcccgc agccagccag cctccattcc aggcactccc gtgaactcct 2100
gacatgagga atgaggttgt tctgatttca agcaaagaac gctgtctctt ggctcctggg 2160
aacagtctca gtgccagcac cacccttgg ctgcctgcc aactgtctgg attctcgggt 2220
ggaactcgac ccgcaggac agccagcccc agagtccgca ctggggagag aaggggccag 2280
gcccaggaca ctgccaccta ccaccactc gagtccaccg agatcactcg gagaagagcc 2340
tgggccatgt ggccgctgca ggagccccac ggtgcaaggg tgaggatagc ccaaggaagg 2400

gctgggcatc tgcccagaca ggcctccac agaaggctgg tgaccaggtc ccaggcgggc 2460
 aagactcagc cttggtgggg cctgaggaca gaggaggccc aggagcatcg gggagagagg 2520
 tggagggaca ccgggagagc caggagcgtg gacacagcca gaactcatca cagaggctgg 2580
 cgtccagccc cgggtcacgt gcagcaggaa caagcagcca ctctgggggc accaggtgga 2640
 gaggcaagac gacaaagagg gtgcccgtgt tcttgtgaaa gcggggctgc tggccacgag 2700
 tgctggacag aggccccac actctgctgc ccccatcacg ccgttccgtg actgtcacgc 2760
 agaatccgca gacaggaagg gagactcgag cgggagtgcg gccagcgcct gcctcagctg 2820
 tcagggagga ctcccgggct cactcgaagg aggtgccacc atttcagctt tggtagcttt 2880
 tcttcttctt ttaaattttc taaagctcat taattgtctt tgatgtttct tttgtgatga 2940
 caataaaata tcctttttaa gtcttgt 2967

<210> 1667

<211> 3582

<212> DNA

<213> Homo sapiens

<400> 1667

gttcaaaact tagatgtgtg tttgaattgc cagcagagaa tgataaacca gtaagtatat 60
 ttatagttaa caataattga atgttgtaag ctgatactta tttgcatacc atttcctgca 120
 aaaccaagat ttaagttggc aaattatctt cctttatctg atgtctgaag aaaaaaata 180
 agctgaagtc agcaaataag tgggccttta tgaaatcagc ctttgaaaaa ctcacggaaa 240
 gacaactgat tgacagtgtt tccccttgaa aagtgcagcc cgatggccat tgagatgtca 300
 taaatcctga agagcttctg tggcctggca aaggtatagg ttgctgttaa acagtgggtg 360
 agagtgaaag agggaacaat ttgcccttta tcatgggtgt tgatggacgt gtgggaagct 420
 ttcaagtctt cttgttttac aaagtgcct gtcagcctcc ctacccttt taccctatct 480
 acctcttcaa tcaaaggctg ctttttagatg aggtattctc agcctcaaca ctgttgatat 540
 ttggggcaaa tccttggtgg tggtaggagt tgccctgtgt actgtagggt gttttattaa 600
 tagcagcatc cctggcttct gccctcttga tactggtagt acttcccagt tgtgacaact 660

aaaaatgtct ccagatattg ccacatgtgt cctggagggc aatatcaacc cccattgaga 720
gtgatcccat tccggtgttg cctgtgggga gaaggaagga gccccatcct ctaggctgtc 780
cactgtgagc gctttacctt tcatgatcct cacttgtgac cagttgaaga aaggagactg 840
tatctgaaat gctaatttgg acttcccttc aacctagtcg aaaacatttt aatttttata 900
aaaacaccaa aactgtgaaa gcatgcagca tgtgaaacta tcctagccat taatagctgg 960
agttgggaaa cagaagtacc ctgaaatgtt gtgttaacag tatctatgtt ggtctgcgcg 1020
agtgtgttg atttgtgtca aaagtacctg agattttatt tctgttgaat catataccac 1080
tatcattacc ctgtttcttt aagtggatag tggtcatttt ttccctcttc ccagtgtaca 1140
tcctgtcaca ggaaggctag tttggaagct gtgaaagcag tattctggcc tcagctctgt 1200
gatagggtga cttggtagcc tggggccttg cttcacaggg cctactcttc tcatctggaa 1260
aatgatgggt agagctagat tccaggccaa tgatcgctcag ttactctttc cctgacaagc 1320
tgcgtgcttc catgccctcc ctccactgac tggctctcat cccctgtaaa tctcaagagg 1380
ggatcatagc tgaatcttgg caggggaaat aaggggagta tgtaacttcc caagattgaa 1440
acattgcaga cactgagttt gtttcacctt catcccagct tccaaatgct aagttggtaa 1500
agtaattcgc cctctgtcta atgtctctcc aagcctccta accccactaa ggcaatccta 1560
gggatgttca catctttgtg gtgacagtaa tttgtggcta ataattcctg agcttgcaca 1620
attacagtat gctgattttt ccgtggcagg aatttgatag tgcaatatac acagcccttt 1680
ttctctttct ttgaagtatt agtctcagcc gaacttcatt atttgcctt atccataatt 1740
tctagggcc tgttgcctta gattattaag atatcagata aagtaatcca tttttaaatt 1800
aaatgtgaca ttttacagtg tggatgaaat gctaccacgt ttggtgtttg ctgagaacta 1860
ctttactttg cataaaaaag tccattatta catggctggg gacacttagg ctttcatttg 1920
tttttgaaca gcatgatgta gaaataaata aaattatatc cacaactgca tcaaagacag 1980
aaacaccaat agtgtctaag tctctgagtt cttctttgga tgacaccgaa gttaagaagg 2040
ttatggaaga atgtaagagg ctgcaagggtg aagttcagag gctacgggag gagaacaagc 2100
agttcaagga agaagatgga ctgcggatga ggaagacagt gcagagcaac agccccattt 2160
cagcattagc cccaactggg aaggaagaag gccttagcac ccggctcttg gctctggtgg 2220
ttttgttctt tatcgttggt gtaattattg ggaagattgc cttgtagagg tagcatgcac 2280
aggatggtaa attggattgg tggatccacc atatcatggg atttaaattt atcataacca 2340
tgtgtaaaaa gaaattaatg tatgatgaca tctcacaggt cttgccttta aattaccctt 2400

ccctgcacac acatacacag atacacacac acaaataataa tgtaacgatac ttttagaaag 2460
ttaaaaatgt atagtaactg attgagggggg aaaagaatga tctttattaa tgacaaggga 2520
aaccatgagt aatgccacaa tggcatattg taaatgtcat tttaaacatt ggtaggcctt 2580
ggtacatgat gctggattac ctctcttaaa atgacaccct tcctcgctg ttggtgctgg 2640
cccttgggga gctggagccc agcatgctgg ggagtgcggt cagctccaca cagtagtccc 2700
cacgtggccc actcccgcc caggctgctt tccgtgtctt cagtctgtc caagccatca 2760
gctccttggg actgatgaac agagtcagaa gcccaaagga attgcactgt ggcagcatca 2820
gacgtactcg tcataagtga gaggcgtgtg ttgactgatt gaccagcgc tttggaaata 2880
aatggcagtg ctttgttcac ttaaaggac caagctaaat ttgtattggt tcatgtagt 2940
aagtcaaact gctattcaga gatgtttaat gcatatttaa cttatttaat gtatttcac 3000
tcatgttttc ttattgtcac aagagtacag ttaatgctgc gtgctgctga actctgttg 3060
gtgaactggg attgctgctg gagggctgtg ggctcctctg tctctggaga gtctggatcat 3120
gtggaggtgg ggtttattgg gatgctggag aagagctgcc aggaagtgtt ttttctgggt 3180
cagtaaataa caactgtcat agggagggaa attctcagta gtgacagtca actctaggtt 3240
acctttttta atgaagagta gtcagtcttc tagattgttc ttataccacc tctcaacat 3300
tactcacact tccagcgccc aggtccaagt ctgagcctga cctccccttg gggacctagc 3360
ctggagtcag gacaaatgga tcgggctgca gagggtaga agcgaggga ccagcagttg 3420
tgggtgggga gcaagggaag agagaaactc ttcagcgaat ccttctagta ctagttgaga 3480
gtttgactgt gaattaattt tatgccataa aagaccaacc cagtctgtt tgactatgta 3540
gcatcttggg aagaaaaatt ataataaagc cccaaaatta ag 3582

<210> 1668

<211> 3111

<212> DNA

<213> Homo sapiens

<400> 1668

tcactcgcgc gttaggaggc tcgggtcggt gtggtgcgct gtcttcccgc ttgcgtcagg 60

gacctgccccg actcagtggc cgccatggca tcagatgaag gcaaactttt tgttggaggg 120
ctgagttttg acaccaatga gcagtcgctg gagcagggtct tctcaaagta cggacagatc 180
tctgaagtgg tggttgtgaa agacagggag acccagagat ctcggggatt tgggtttgtc 240
acctttgaga acattgacga cgctaaggat gccatgatgg ccatgaatgg gaaggtgagg 300
atcagggtgc tgagcaggag tctcgtctcg aggatggggc acccacctgc taaccgtcc 360
cgccctctgt ctccagtctg tagatggacg gcagatccga gtagaccagg caggaggagg 420
ggaccgaggc tatgggggga accggttcga gtccaggagt gggggctacg gaggctccag 480
agactactat agcagccgga gtcagagtgg tggctacagt gaccggagct cgggcgggtc 540
ctacagagac agttacgaca gttacggtaa gtcacactcc gagggcgcca cgctgctgtg 600
gcctgcggtg ggagctcggt tcaccttgggt gccctctcca agcactttag gctggacact 660
cagaccttgt cactgtgctt gcccagaaga ggcgcactctg tcctctcaga gccatttcta 720
tcgcaggacg caaaagccaa atgagactga ccaaaaaggc aaggagagc gagggccgc 780
tgggcagtca gctaggtgca tgtgtggccg caggccagcc tccctcggct gtggggggtg 840
gttgctcccc ggccgcaggc cgcgccctgg tctggcctct ggggtgaagc tgcctcttgt 900
tgcttcggtg cctttacact gtgcctgctt cttgtcctca gctacacaca acgagtaaaa 960
acccttcctg ctcaagatcg tccttccaat ggctgtgtgt ttaaagattg tgggagcttc 1020
gctgaacgtt aatgtgtagt aaatgcacct ccttgtattc ccactttcgt agtcatttcg 1080
gttctgatct tgtcaaacc agcctgaccg cttctgacgc cgggatggcc tcgttactag 1140
acttttcttt ttaaggaagt gctgtttttt tttgagggtt ttcaaaacat tttgaaaagc 1200
atttactttt ttgaccacga gccatgagtt ttcaaaaaa tcggggggtg tgtgggtttt 1260
tggtttttgt tttagttttt ggttgcgttg cctttttttt ttagtgggggt tggcccatg 1320
aagtgggtgc cccactcact tctctgagat cgaacggact gtgaatccgc tctttgtcgg 1380
aagctgagca agctgtggct tttttccaac tccgtgtgac gtttctgagt gtagtgtggt 1440
aggacccccg cgggtgtggc agcaactgcc ctggagcccc agcccctgcg tccatctgtg 1500
ctgtgcgccc cacagtagac gtgcagacgt ccctgagagg ttcttgaaga tgtttattta 1560
tattgtcctt ttttactgga agacgtacgc atactccatc gatgttgtat ttgcagtggc 1620
tgaggaattc ttgtacgag ttttctttgg ctttacgaag ccgattaaaa gaccgtgtga 1680
aatgaacctt gctctgacaa ttcccttgca ttgcaccaca cactccttgc tgcgggctcc 1740
tgcagccaga cctgagcaga gagagaaggt ggagaagcag cgggtctgca agccttcct 1800

ggggcctgca gagctagaaa gggaggccca gcagactggc gctggtcagg gtaggggagc 1860
caggcggggg acgggagcgg gcagctcagg cctcagggca gccctgggag gcttctggca 1920
gtggtggcca gagggctgga ctgtgcgggc agcttagcag ggacagtgga cgtgcacctg 1980
acgctgacct ggactgcctc agtctagaag caggccagag agcagaggca cgtggcatcc 2040
cagggcgacc tcagacggcc agccggttag ctagttctgc tgttgcttca cgagttctga 2100
gcattctctg ctagcctatg gaagctgcag ccctcggagg acagaagtgt tgtgcgcca 2160
acagaacct ctgagacgca agctgctccc ttggctagct catatgtgga aatagccctg 2220
taattcgagg taactccttc cgctcgtgtc cacatccctc ttgttgagag ctcactgaaa 2280
gtcatgtgcc cggggaatgt tcctgtgact gttttttgtt tttccttttt tttttaactt 2340
tgtttttgtt tttttcaatt aagctggaac taaagtcagg cccagccatt acgctcccca 2400
cgtgcagcca ggtgcagcct gggcccagtc atgcctggct catagatgaa atcccttaag 2460
caggattgaa gaccagtga gacccccgcc ttttgattt tttgctcaat tgaccgtctt 2520
ttccagacct ctttaagtca cactcttaac ttagctttct ctgatgtctg ttgccgcat 2580
tagttttttt ctagagccca cactggccca catagctcca tcccatacgg gtagctggct 2640
ccagctgcgc caaggtgcag acccgccctg ggcatgctgg cctgtgacgg agcctgaggt 2700
cacagcccc tgactagcct gagaccttcc taggggctgt ggctgtttcc ggggaggcgc 2760
ggaggggag ctgtgagccc tgtggaggac gttgggagta acgctgcttt gctttggcag 2820
gttgaagggg cccggccagg actcggggaa ggggtggcctg agagcagcga tgacctctgg 2880
ggtcactgtc ccaggaggga cttcacctgg aacaagagct ggaggcagcc gcttgcccag 2940
gaggcttgtc ccctgaggcg cttcgccagt gaggtgcggg ctcagggcct cgagtctctc 3000
ctggagcacg ggctgcggtg cgccggcagc ttacggggcg gccagtcctt gccacaacg 3060
atgtggagcc ctgtgaaagt cggattcgaa taaagggcca cgtgtgcacc c 3111

<210> 1669

<211> 2732

<212> DNA

<213> Homo sapiens

<400> 1669

tctgggcttc	acctgggggtc	ctgcttattc	ccgtgcctac	ctggcactgc	cccctgtccc	60
cccttaaacc	tttcaggccc	ctgcacttct	gttgcctcct	ttttcaggtc	tgctctgttt	120
agtcagcttt	cctagctgct	ctagtctctc	acacagaaaa	gccagcgaag	ttggttcagc	180
ccgaggcatt	cacacaagca	cctgcctgtg	gtgtcaaatg	gatgtgtgag	gcttgggtctc	240
cagcagctct	gcctggtgaa	gctgcagggt	tggccgggtct	gtgtgcttat	gtgttaggca	300
ggccgcctag	ttgcacactc	ttccgagggg	caccatttac	ttggcgttcc	ctgggactgc	360
tggctctcag	gcatggagtc	tgtttcagga	gtgtggcgtc	accacttcca	tgtgctggtt	420
ctgctctcct	gggagtcaag	cagggccagt	cgctgatcaa	gcctccctgg	tctctcctag	480
gactactatg	gaattccctt	tgctgcaccc	acagcgcttg	ccagccgaga	tgggagccta	540
gctaataatc	catatccagg	tgagtttgct	caatggatga	ggagtagccc	ggggccggcc	600
tagcgcgaac	tccaggagct	gggaagcagc	aacagcaagc	tgagagaggc	ctcttagtag	660
cctgtgctga	gctggcagcc	agacctgttc	ctgtttgcag	aagccagtgt	ggcctttctc	720
tggttggagg	aagggcagtg	gctggagtca	gtgctctttc	ctaggtgatg	tcacaaagtt	780
tggccgtggg	gactctgcat	cccctgcacc	cgctaccaca	ccagctcagc	cacagcagag	840
ccaatcacag	accaccaca	cagcccagca	gcccttcgtg	aatcctgcac	tgccacctgg	900
ctatagctac	actggtcttc	cctactacac	aggcatgccc	agtgccttcc	agtatggccc	960
catcatgttt	gtgagtattt	cagaggggtg	gactgtgtct	cctggccttg	ggttgctggc	1020
aggtggaaac	ctgggacctt	tcttcagca	gggagggagg	gttgatgattc	cactccgtct	1080
tacctggtct	tcagaaactg	ttcaggctgg	ggacaaggtc	acttttcccc	tgctgtgttt	1140
agatccagca	tgtgttgac	taatgaaaac	acaggctccc	tgtggttgtg	ggtatgtcac	1200
ctgctgcctt	aggctctggc	aggggtacct	gaccagcctc	agcttgccctc	ttcctacact	1260
aatacctcat	ctgcttgccc	ccccaggctc	ctccagcctc	agccaagcaa	catgggggtga	1320
acctcagcac	tcccacacct	cccttcagc	aggccagtgg	ttatggccag	cacggctaca	1380
gtacagggtga	gggggtacttc	ccagacagag	acacatgggg	ttagacaggc	ttgcctggct	1440
cacacttgcc	tcttgtaccc	tgccacgcta	ggttatgacg	acctgacca	ggggacagca	1500
gcaggagact	actccaaagg	tggctatgct	ggatcatcgc	aggcaccaaa	caagtctgca	1560
ggttctgggc	ctggcaaagg	tagtgtttac	ctctcctttc	caggataagg	cctggagtgg	1620
tgggctcctg	cctgatcccc	tctcaggcag	ggcaaccctt	gagtgatcct	ggaggtgggg	1680

agcctggagc tgggaacaac tgctgtgggg aacaactgct tttcctccta ggagtatcag 1740
tgtcttcaag caccactggt ctacctgata tgactgggtc tgtctacaat aagacacaga 1800
cttttgacaa gcagggattt catgcaggga cgccctccacc tttcagcctg ccctcggtct 1860
tgggctccac tggggccctg gcctcgggag cggcccttg ctatgcaccc ccaccattcc 1920
tacacatctt gccagcccac cagcagcccc actcacagct gctgcaccac caccttccgc 1980
aggatgcaca gagtggctcg ggtcagcgca gccagcccag ctccctgcag cccaagtctc 2040
aagcctccaa acctgcctac ggcaactctc catactggac aaactaaacc cagaagagag 2100
gggtgggctg gggcaaggct tatcctgggc aggagagaac acacgagcac gtatttggga 2160
gcccagtgcc ctttccatga attcccgaca tgtgtcagcc atgcctctgt ggggagtctg 2220
cctcccagac tggctactgt atgtaatgta tttatgtatg tatttgtaaa tgtgatagaa 2280
gtctgggggg gagttggggg atggcggcag atgttagcca ggtctgccct cccattcaa 2340
gccccttctc cactgtagca aaataagcac cccacccca tctgccttca ggtcttcttc 2400
acagcctgca ctgcccagtg ggccactagg ggcagtctct ggaagggtg gttcaaggct 2460
gtttgggtat aggggtcagg taccaatgaa gaatcacgac ttgtctcact cttttgaaa 2520
ttgttttctt tcctgtgtaa ttacttcata cctctgtttt tgagaaactg ttccgtttgt 2580
catctgtcat ggtctccttc caccaaattc tcactctggga atagcagcgg tatccctcca 2640
cccaagtatg gccacctgtt tgtcttcata tagaacaggg gcttctggtc tggatcatgc 2700
cctagagact tactagagac tggctgacca tg 2732

<210> 1670

<211> 3310

<212> DNA

<213> Homo sapiens

<400> 1670

gattagtgat ttatgtaaaa ctgaagggat aaccatttct actgctgtat accacttggga 60
taaccttata aagccactta atagggaata atggggctgg aaatttaatg ggaatagatt 120
taaagtgcct gtgggataag aaacatgata ttgctctctt ttgttctctt tcagttcaaa 180

acaggaagtg cctaggtatg cagaaatgca aatcaagcca gctatatattt tgggtgtgttt 240
tgtgtgtgtt tagattttca cacatcagca atactgtaag aacactatgt ggccaggcac 300
agtggctcac gcttataatc ccagcccttt gggaggccaa ggtgggagga ttgcttgagc 360
cctgggagtt caagaccagc ctgggcaaca tagtaagacc ctgtctgtac aaaaagtga 420
aaaaaaaaa atggatgggc atgatggcat atgctgtggt tccagcta atctggacgtgg 480
aggtgggagg aggatcactt aagttcagga atttttggtg gctgcagtga gctgtgacca 540
tgccactgca ctccagcttg ggcaacagag ccagaccctg tctccaaaaa aagaatacta 600
ttatgtgaat aatccaccag attcaactaa aaaatggcca tgatgtttta aaagtacata 660
tatacacaca tatagattta aagattactt tcaactttct aagaaattag tagatcttta 720
gaaaatcatt gtgcgtatgt gcatatgtgc attgtttgtg ctgggtccac cttcaaggag 780
aaaatatttc aagatcctga tgcttactta agaggttgta tgtgtttacc atggaaagga 840
ccttggaat catctcctaa ttctgacttc attatttatt tattttgatg aagcaaatgg 900
tgcccagatt gaaacaggag tgtaagccac agccaccaag tgccagtgcc caggctaaca 960
cttttctcca ttaactctgg aaaccttatt tcctttttgt accacgtatt tacagtgttt 1020
ggtagttatg aattgagtga attatcccaa gggttgagat atcttggtac tcaactgtaa 1080
gtggagaaac actaatagga aaatattctg ggaatctggt aaggaagtat gagtgaattt 1140
atcatattta acctttgttc aaatacatta agccctttct tccctttgtc attctcaaac 1200
tggatcgaca tgataggagg agaaatttta tcaactaaaa ggggttgtgt caataagtgt 1260
ttatgatacc tctaaactta ggccttaaaa caacacaatc tgtgatctga cagttctgta 1320
ggtagatgt tcaacatgag tctcatctgg ctaaaacat catgttagca aagctgcatt 1380
tgtctctgaa ggttctttct aggggagaat ccccttgct tttctgact tctaaaaact 1440
gaccacattc cttgacttgt ggccctcttt ttccatctc aaagcctgta acatagcacc 1500
tctgaccatt ttttcatag tcattctgtg tctggcccca gctgggaaaa gttctccaat 1560
tggttaaggac ctacttgatt agatatgacc cacctgaata acctcacata ctcttctat 1620
ctcaaaactc ttaacttaat cctatctgca aagtccgttt tgtcatatac agtagcatgt 1680
tcataggttt caagcatttg gacatgggcc tctttgggag gcattacgct gcctgtgaca 1740
gtgctcttct gatacatatt cagtgatctt ctagacataa caatcctggt cctgggaaca 1800
tgcatggcgg ggacctaaat aagtctatatt tttaagaggc cctacccttt gcatagatcc 1860
taatcttggg gtaaaggaaa gtttgagatt tcaactccacc tttttttttg gtgctggtat 1920

ttccactgtg ggaaagatca ttcggattta acaaccacat gaagctcctg gattatctgg 1980
ggcatgtttg ctgattccca aggaagcttg atctttttga tggagcactt gagctggtaa 2040
gttattagaa gctgagctat aattttcctt ggcatgggtc atttttgtct aatcttttat 2100
ttttttgttt ttttgttttg ttttgttttg ttttgagatg gagtctcact gtgtcccccg 2160
ggctggagtg cagtgggtgcg atctcggctc actgcggcct ccgcctcctg ggttcaagcg 2220
attctcctcc ctaagccttc agagtggctg ggactgcagg cgtgcaccac catgcccggg 2280
tagctttttg tggtttcagt agagacaggg tttcaccatg ctggccaggc tgatctcgaa 2340
ctcctgacct tgtgatccac ccacctcggc ctccaaaagt gctgggatta caggcatgag 2400
ccaccgcgcc tggcctgtct aatcttttat ttaatgcac taggctcctc ctttcttctt 2460
tcatggtttc ctttttccta ctccctatc tcgttttctt tccttctttt catttacaga 2520
gaaatgggtg tagaaatgaa tgagaggagt gagcaaagaa agatgaggga aaaatagatg 2580
tgttaaggag tatacgcata aagaaaagag gccaggagga aaagctgttc accccgactc 2640
ccatcctaatt cttgcgtagt ctttcgtttc ctgagaatag ttaggtcaga agttacagta 2700
gaaactttca tggaatacac aaaaggaat taagtaagga aacttgtgac cgatgctatg 2760
ggaaaggaca tgtttgtcaa agcaataggt tcttctgag ttagagaaca attatggttc 2820
ccccatggaa atgtttatct gacgcaatga gaaccaggtc agacacaatt cagaaatgaa 2880
atgaataaaa ttattctaag atctagatgg gaggagacat aagggttgt gttttgatag 2940
tcttaagggt gcacttacat ttacatcccc aaattccctc ttccatgaac cactgtgcac 3000
tgtacattgc cacattaatg ctaactgtgc caattagatt aactaatatt ggtcaaaaaa 3060
gaatatcctg gccgggcgcg gtggctcacg cctgtgatcc cggcgctttg ggaggccgag 3120
gcgggtcacg gtgaaacccc gtctctactg aaaatacaac aattagctgg gcgtgggtgt 3180
gggcacctgt agtcccagct gcttgggagg ctgagacagg agaatcgctt gaaccctga 3240
ggcggagggt gcagtgagcc aagatcgac cactgtgttc cagccctagc gacagagtga 3300
gactcttatac 3310

<210> 1671

<211> 3092

<212> DNA

<213> Homo sapiens

<400> 1671

gaggggcttc	tctgctcagg	ccctgggtcc	ctggagagcc	ctgctactgg	ttgggcctgg	60
ggctcatctg	cctgtgcctc	ccacagtcca	gcctttttaca	cctggaagat	gatctcatcc	120
ccagggttta	tagagggacc	tgcactggcc	agacctcctg	catcaggcca	gcatacactc	180
tcagtggcca	ggtggctgtg	cactgagaag	gccttgcagg	ctgcaagcct	ctggacgctg	240
ctgataagaa	acaggccggg	agcccctggg	aggcgtgctg	acacctggca	gggcattgct	300
ggtgtcagag	gcatgcaggg	ctcctccagc	tgtctgggttc	ctggttctgt	gcctctgcac	360
agggtctctc	atcccagcca	cgcttgcaca	gaagccctct	ttccatctga	gggtcccataa	420
ggcctctcca	cgttgccaca	gcccagttcc	agtcacacagc	ctagtccaga	tttatgcact	480
gaacagcgag	aggctcagtc	agaagggaca	gagcacgact	gtgggggtgtg	aaaatgggca	540
cctcaagcag	agggaaggca	agagacggga	gggtgggcat	gggaaagggc	cagaaatggc	600
cttactgccc	agtgtggtga	gataggggat	ggagcaagtc	tctgaaattg	tcccattccc	660
aaaagcagct	aaagtttggg	ggagggtggc	agagtaattg	tattaaggag	ggcaattaca	720
ctgcccaggg	ctctgccagg	ccctttccgc	tgtcattgtg	tgaagttcac	cctgaaattc	780
tccagcagga	gagacaatct	gtattttact	aatggcaaaa	tagaggccca	gagtggccca	840
gaaagtggc	caaggccaca	agtggctgtc	tccagggtca	tcagaaatca	acccagatc	900
tgtccctaac	ccagggaggc	ccatagctgt	ggcttgtaga	cctgggtccc	cttctagctc	960
ctctgccaca	atctaatttg	accttgtcct	tcccaactgt	agtcgtgaac	acccgactga	1020
gtgtcttgta	ggatttctgt	cgggtaccca	agaattcaga	caggctgaca	ggaattcctg	1080
ttctcctctt	taagccttcg	gtgtgctggc	cccagggtct	aacgtgaatc	atgcactaaa	1140
gaggacgcgt	ccccctgagg	ccttcagccc	atttcagagc	cacagggtca	gactgtaagc	1200
ctagtcatga	gtgtacagag	ccagacacca	gccaggctgc	tggtgagctc	agcagctttc	1260
tgcttggaga	cactgggaat	gtgaccttcc	tgcctgagcc	aggggggtccc	tgagtgagaa	1320
ggagccctga	ggctggagga	gagagagtgc	atctcagtga	gaacccgctg	gagaccaggc	1380
ttggatgggt	ggctcgcccc	cagccaggca	gcccactgc	aactgcaggg	ctgtggaggc	1440
atcagtgaga	tgtcctgcca	ggacaggcat	aggctgtctg	tctcttact	gcagagtga	1500
gaggccacct	gtgtgctgca	cacctctctt	ccaggatctc	ccctcagaca	gggatttact	1560

caggccctca gcaggttggg ggatcctgac agaacaagt catgcctctt tctccatcca 1620
tgcccgccct tgtggggagg ctatttccaa actcctcttc ctgacttggc attgtgggct 1680
gacctgggga gtgtgataag cttgggaagt tgagcctgtt cgactggagt gtgctgtcga 1740
atttagagga gctgtgcct tttaaaacct tgtttaattt caattttttt tttttttgtt 1800
ttaaattgag tgtgtctccc tgctccatca ccttcagttc cctgaataaa ttttttgata 1860
gtgtcctctt ccaggccatc cccactacac actcatacaa aatgaagcag caagattcag 1920
aggctcttga gccagactct acctcccatc catgctgagg attctccttc acctatcct 1980
gtggatgctc attatgttaa tgggaaacaa tattactcga tccatcagga aagtcaggct 2040
aatagtgtga aaccttactc tctgtcacca aatatagtgc ccacaatgat ataacagcct 2100
ttccagttag ttttaattcgt gtgcgcacca cagcaggagg cccitttagaa actggatctc 2160
atttcattct cacaacacc agggaaggctc atagctgcca ttcatataga tcttaagggtg 2220
ggccagacac tgttgcaact acattccaca aactaatata tgccataact ctattgtggg 2280
gaggaagcta gaggcctac aaagttaggt aacctacca gggtcacaca gccaggaagc 2340
aataggacca gcatccaaca gcctggctcc aggtccttac tgtgtgcatg gccacctctc 2400
tgtcctgcaa ggtagtcact actgtctaca tttcgcagct gtggacaccg aggctctgat 2460
gttttagtgat aggctcaacg tggcagggtt gttgagtggg agagccgtgc tatgaactga 2520
cctgagggga ggctcatgtc tgagtcagggt tccgtccat atcctgtgtg cagagtgate 2580
tatggaaaca cctgcaagt catctctcta cagtgcacaa tgtcacacag caggtccttg 2640
aataacgtca tttcattcaa cgtcatctga aactgagtg agaaatgacg atgctgatca 2700
gaaaaaaatc cattcccggc tgaggctact gtctgtgtgg agttggtgtg tgaaaaatgg 2760
cattggtatt ttttttagta attgcatcga atctgcagat ggctttgggt agtacaatca 2820
ctttagcaat attaactcat ccagtttgtg taaatgggat gtctttccat ttgtttgtgt 2880
cctcttcaat ttctttcatc agtgttttat agttttcctt gttgagatct ttcacctcct 2940
tggataaatt tatttctagg tatttctttt gtagttattg ttaatgggat tgcctttttg 3000
atttcttttc cagctgttat tattggtgct actgaatttt gtatgttgat ttaacaattt 3060
ttttaaatta taataaagat gagcatctca ct 3092

<210> 1672

<211> 3196

<212> DNA

<213> Homo sapiens

<400> 1672

atctccgcga ccaggaaacg ggaaagatgg cgacggctcc gcgacgttga ggccgcgttg	60
ggcgggttcag actcagggtg atggcaggag agctggctga caaaaaggac cgtgatgcat	120
caccttccaa ggaggaaagg aagcgatcac ggactcctga cagagagcgg gatagagacc	180
gggaccggaa gtcttcccca tctaaagata gaaagcggca tcgttcaagg gatagacgtc	240
gaggaggcag ccgttctcgc tctcgttccc gttccaaatc tgcagaaaga gaacgacggc	300
acaaagaacg agaacgagat aaggagcggg atcggaataa gaaggaccga gatcgaggaa	360
aagactttta atctcgggaag gacagagact ctaagaagga tgaagaggat gaacatggtg	420
ataagaagcc taaggcccag ccattatccc tggaggagct tctggccaag aaaaaggctg	480
aggaagaagc tgaggctaag cccaagttcc tctctaaagc agaacgagag gctgaagctc	540
taaagcgacg gcagcaggag gtggaagagc ggcagaggat gcttgaagaa gagaggaaga	600
aaaggaaaca gttccaagac ttgggcagga agatgttggga agatcctcag gaacgggaac	660
gtcgggaacg cagggagagg atggaacggg agaccaatgg aaatgaggat gaggaagggc	720
ggcagaagat ccgggaagag aaggataaga gcaaggaact gcatgccatt aaggagcgtt	780
acctgggttg catcaaaaag cggcgccgaa cgagacatct caatgaccgg aaatttgttt	840
ttgagtggga tgcattctgag gacacatcca ttgactacaa cccctgtac aaagaacggc	900
accaggtgca gttgttaggg cgaggcttca ttgcaggcat tgacctcaag cagcagaagc	960
gagagcagtc acgtttctat ggagacctaa tggagaagag gcgaaccctg gaagaaaagg	1020
agcaggagga ggcaagactc cgcaaacttc gtaagaagga agccaagcag cgctgggatg	1080
atcgtcattg gtctcagaaa aagttagatg agatgacgga cagggactgg cggatcttcc	1140
gtgaggacta cagcatcacc accaaaggtg gcaagatccc caatcccatc cgatcctgga	1200
aagactcttc tctgccccca cacatcttgg aggtcattga taagtgtggc tacaaggaac	1260
caacacctat ccagcgtcag gcaattccca ttgggctaca gaatcgtgac atcattggtg	1320
tggctgagac tggcagtggc aagacagcag ccttcctcat ccctctgctg gtctggatca	1380
ccacacttcc caaaattgac aggatcgaag agtcagacca aggcccttat gccatcatcc	1440

tggctccac ccgtaggttg gctcaacaga ttgaggaaga gaccatcaag tttgggaaac 1500
cgctaggtat ccgcactgtg gctgtcattg gtggcatctc cagagaagac cagggcttca 1560
ggctgcgcat gggttgtgag attgtgattg ctacccttg gcgtttgatt gatgtgctgg 1620
agaaccgcta cctggtgctg agccgctgta cctatgtggt tctggatgag gcagatagga 1680
tgattgacat gggctttgag ccagatgtcc agaagatcct ggagcacatg cctgtcagca 1740
accagaagcc agacacggat gaggctgagg accctgagaa gatgctggcc aactttgagt 1800
cgggaaaaca taagtaccgc caaacagtca tgttcacggc caccatgccc ccagcgggtgg 1860
agcgtctggc caggagctat cttcggcgac ctgctgtggt gtacattggc tccgcaggca 1920
agcccatga gcgtgtggaa cagaaggtct tcctcatgtc agagtcagaa aagaggaaaa 1980
agctgctggc aatcttggag caaggctttg acccaccat cattatttt gtcaaccaga 2040
agaagggtg cgacgtgttg gccaaatccc tggagaagat ggggtacaat gcttgcacac 2100
tgcacgggtg aaaaggccag gagcagcgag agtttgcgtt gtccaacctc aaggctgggg 2160
ccaaggatat tttggtggct acagatgtgg ctggctgtgg tattgacatc caagatgtgt 2220
ctatggttgt caactatgat atggccaaaa atattgaaga ttacatccac cgcatgtggc 2280
gcacgggacg agcaggcaag agtggggtgg ccatcacctt cctcacaaa gaggactctg 2340
ctgtgttcta cgagctgaag caagctatcc tggaaagccc agtgtcttc tgtcccccg 2400
aactagccaa ccaccagat gccagcata agccaggcac catcctcacc aagaagcgcc 2460
gggaagagac catctttgcc tgacacagca ctcttcctgt gggctgaggg catctccaaa 2520
gctgcctgat gcctgtttt cagaacctc acatccctct ttccaggtcc tactcttgg 2580
gatatggggg cttaggaaaa caatccaact ccctagccca gaccctcagg tcaggaggcc 2640
tgcgtgtggg gctgcaaaag gagaggacga cgctgtcgga ggcagggaga gcaaattacc 2700
acagcttctt ggcccagttc tgcccttctt tgctttggga ttgactggg ccatcagctc 2760
atgccaggct atgggggcag ccagttggca ttgctccca gactgaacag aaacctggcc 2820
gccgatggg acctcctttg gcacagactt gactgtgtaa ctgcataaac tgcagtagca 2880
tcattgccct agatgcccc ggagacctg caccatgagg attacagaca gtggaatctt 2940
actgtcatct ggacagctgt tttcctgttt ggatggtaaa ggaagttgag agtctttaga 3000
cctgtgcaca gccccacacc aaggggtgct gtatgctcct aggcacccc tccccaggg 3060
gattttctaa gtagatgggg ggacacggtg aactggctgt gtccatctt gtcactgagt 3120
gaaatctctg ttttctattc tctgagaaga taagtttgta tgttctgaga ataaatacat 3180

gaatattaag actgtt

3196

<210> 1673

<211> 2940

<212> DNA

<213> Homo sapiens

<400> 1673

gatggataag tatgctggtg cttgtcgaa tgattgttca gtgcgagttg gcctggggaa 60
agacgcgggt gcctcgggga tatctagatg ttagtgcccg taaaatatac ccgacagact 120
actaacgaac taccagtagg gtggtggtgg tggctcttgc cttgccacgc cagctacaa 180
aactggtggc cgccgcatcc atgcatctca cctcagcgcg cccactgcag aaccctacca 240
agtaccaag caacagggct acggtcgctt ccgccagctg gtaagccgcc gcaaaggtca 300
cctcgtctgg aatcgtcgcg agtcaaaacg tccgtcctct cagcacgaca caaggcgaag 360
cacctccggg ccgtcgccac gcttcccaaa gcggaggaag gcttcacgtg ccgccacgcg 420
ccgcacgcag tacgcagtac gagcactttc gtacaccgca caggcaacgg cgagctgac 480
gggtgggcgg cgacgacgca cggctttcac tgcctcctg ctgcagacgg ccgacctcag 540
ctccgcggtg ctctgactcg gtaccccggc atcccggtcg cctcgtctat cgcccatcgc 600
cacatcgcgg gcatgtcgcc atgtgtgca cgtgaagctc tcctcttccc ctctgtgtgaa 660
caccaggctg gcccagggc cctctgcgtt gtatcaattg ggaggtgccg aaccaaagta 720
gccccgtcgt tgagacggac gacgacgcac gtcaccttga gctgcgcgac gctgcagcag 780
ccactgcaaa cctgccacga tgccgactta cctttgccac ggcttccggt ggcatcgccg 840
cgagatccgc atctttgtca tcctcaacga catcgacgat gccgccccgg actggatcgt 900
cggccgcaca agctcggctt ccctgctgtc ccagttcgcg cagaactttg actttctccc 960
caaggagccc attgccgtac cagaagccgt tctggagcat gcggatgcgg cgcaggacca 1020
accacggcca caccgcgatg acgacctgtc ggtgcccccg tcgctgtgtc ccccgctccga 1080
ggacgacgtg ctggccaacg actggtcgcc ggtgaagttg ctggaggagt acgatgtgga 1140
ggaaacgcag agcgcgagcc ggccatacgc ctttgtcgcc gactatgtcg tccgcgtgga 1200

tctcagcgtc aacgtcggcg acgagatggc tcggtacgag gcggcctcgg cggccgccac 1260
aaaagacgac gcggacggct ggttcgagaa gctacgggac aagctgcagg tcggggagag 1320
gatagggtgg cacattgtcg tgtgcgcaga cgaggagagg gttgcgccag atgagggtag 1380
ctcggatgag tacgatttct cggacgaagg agctgtgacg ccgaccagga acctgaatct 1440
cccgatgagg ccggcagcgg aagcgccacc cggccgcgag caaaggcccc cgacggcaag 1500
cgcaaaagct gaagccgcca agggcaagga aaagcaagaa gccagccagc agccccactt 1560
tctccgcaac gaccccatca agacgagccc gcagcctggg ctgcggcaca agctatcgac 1620
gaagggacta cgccggctgt tttccaagaa ggacggatca tgaccctaca aggttggaag 1680
gggatggcgt tcaagaggcg gggacaaaag cagcgacgat gtgacgattc tgggtgctgga 1740
cttgctcttt ggagtttggg ggtgtcgtgg gcatgcgtcg tggagctcta gcgatggcgg 1800
gtagactggg gagggcaggt gcgggggtcc aggctgttaa cgatatccct accttacgtg 1860
tttaatgatg agcgaagtct aattgtacga tgcgacgtgc gtgagggtca ggtcattggc 1920
gaggatgagt gctggtttcg atcttgagtc agtgggctgg gagcccagta ttcagtttgt 1980
ttggtggtgc caatgtgcag cgcgtttcac gtttcaaacg tgcgcgcagt tgacggtgca 2040
ccgagtaaaa gggttggttc accgtcggca tccaggcctt tttgaaccg aagcagacct 2100
atcccagcgt cccatgcact tgcaattgca actgcgcaga ggtgacgccc ggcacgcgt 2160
cgcgtcagat tggaccctgt acttcgtatg acatgcagct gtcacgtggg gggctcgcac 2220
atccgactgc acgcaaggct gagagacagc agctcactcg acaccacaac ctcatagta 2280
cccaagtgtc ctttgtacgt tttacaacaa ccgcataaga aatctcgcga cccgtccgga 2340
gacgcgtccc cgcgccgcat ggcacagcgt ttcgatcccc ggggagcttg accttgtgct 2400
gcaagacgcg agcagcggat ccgttgatgc ggatcgagta ctgctagcat tagtagtagc 2460
tcgccctctg tccttcgctc caagtttggc tgcgcaaac caaccccc ccccttgtt 2520
cagcttcatg tgccgccacc gcccgccatg tcgttcgcc ccgtgagccc ggcgagtccc 2580
gcgggggagg cctcggcctc gtttgcgcag acgggcgccg agtttacgt cgacgacagc 2640
agcgacgcca tcgacgacga tgacgattat gacgacgacg aggaagacct gcgctccgag 2700
gtgggcagcg gcgccgccga gtctacgag atggtggagc gcgtggacga agcagccgcc 2760
gccgctggca acagcggctc gggcgcgcg gcaatgcgct ccgcccggcg gccagcgcg 2820
agcaccgtcg caagcttcca gctctacacg ccggacgagg agcgcgccgt gcgccgaag 2880
ttcgacaggc ggctggtgct gtttgtgacg ctgctgttca tgctcagctt cctcgaccgc 2940

<210> 1674

<211> 3324

<212> DNA

<213> Homo sapiens

<400> 1674

```
tgttttcacg tgtccctcca tctgtctttt gaaagggttt caggctctttt gaaagggttt    60
caggagtggg gttaattctt tttgtttttg cctttttgtt gtcgttgttt tttgtttttt    120
ttttgagacg gagttttgct cttgtcaccc aggctggagt gcagtggcat gatctcggct    180
cactgcagcc tccacctcct gggttcaagt gatgtctcta cctcagcctc ccgagtagct    240
gggattacag gtgcgcgcca ccacgccag ctaatttttg tatttttagt agagatgggg    300
tttcaccatg tttcccaggc tggctctttaa ctcttgacct caggatgatcc acccaccttg    360
gcctcccaaa gtgctgggat tacaggcatg agccaccgtg cccagccgtt ttttaaata    420
tatatatgtt ttatctgttt tttactattt ttaatagaga cgggggtctg tgttgcccag    480
gctgggttaa cccctgggct caagcgatcc ttcacctgcg cctccccagg aggggtgttga    540
ttctttggct gtttggcagg gtttgccctgg gagctcttgg gccctgggtt tgtctttgtt    600
ggagactttt gagggggact tggccccctg ctggccacag gtctgctcag tccctttcct    660
cttggctcggc tgtctgtctc gcatcttgct tgggtgcacag ttcattgggtt tctagtatct    720
gctttttatt tctgtaagat tagtagttat atcccttctt tttctgattt tagtaatttg    780
aatcttcttt cgtcttagct gatgtagcta gaaatttgct gatttcatta tcttttcaaa    840
gaaccaactc ttgggtttgt tgactgtatt tttctgtttt ctctcttctg tcatctttgt    900
tactcctgtc tgctgcttag gggttcagtg tggctcttctt ttttctagtt tcttaatttg    960
aaaagttagt ttacagctgt aaacatccct ccgagtgcag ccttcgctga tcccctagcg    1020
tcatcatttc tgtttgtctg gaggtgtttc tgattccctc tgatttcttg ttggagccgt    1080
gggtgggtta tgtttaactt ccacatgttt gtgaagtttc tggttttcct tctgttgctt    1140
gtttctaact ttatctcctt gttagagaac agactttttg tgatttcagt tttgtgaaat    1200
gtattgattt gtgtagtggc cccacatcca tcctggagag tgttccgtgc gcgcgggagg    1260
```

aggatgtgcc ctcggttccg tgcgcgcggg aggaggacgc gccctcgggtg ctgttgggggt 1320
ggtgttctgc aggtgggttg aggccgtgtc tttcctcact gatcgtctgt ctggcggttc 1380
tctccgtggt tagaagtagg gcaccgagtc tccctgtcac tgaagaactg cttttctcct 1440
tgtcattctg tctattcttg attcagatat tttgggggtct cttgttagga gcaggaatat 1500
tttcgtagga aaaattcctg gtagtgaaat tgttgggtca caatacatgg cccttgtatg 1560
actaggctga ccttgctgga gttgatggag tccagtctca ggacgctgct gtctgcacac 1620
ctgcgaaagc tcccaccttg gctatttgat ggacaagtga tgtcaggggc tcatttctgc 1680
gtttgtgatg gtcacgattt cgtctgtccg ctgcttgttt cttcttgctt tatccctgc 1740
ccttcatttc ctgtcctgtc gttgtgcgat ggtttttag gaactctgtt gcgggtggtt 1800
ggaacttagc aaatacttga gtgattaacg tgaggacggt attacttgct tataataact 1860
attatgtccc tcgtcaaata tgcttcattt ttcaacctgg gcctgggtgct tatcatggta 1920
caaaggtttt cgtcctaagg aatcacgttt ctttcaccgt ccttagcggg ttttccctta 1980
taccaccac agcagcagtg ggtatttaca aagtaattca tctgaatttt tgttgttttg 2040
ttctgatggg aagtggttca gttttgaatt tgatttatca gtagatgttt gggtttttga 2100
aaagcctctg atatttagaa tcggaatgta gggaacctta cgtcagcgtt ggggtctgtga 2160
gcgaggatgg cgatcgggat gcgacttcgg gtcttttcct taaaactgga tgctttgttt 2220
catttccttc cctccaagat cgacctgatg ccccatgacc tcatcactca gctcttgccg 2280
gtcctggcca tcgagacca gcaggagaag gcgatggcgc acgccgacc caggagctg 2340
gcgctgagcg gcctggaggc cttctctttc gactacatcg tcaagtggcc ctttcgctc 2400
atcatcaaca ggtgcgggtc ggctgctcgg gcacctgcca gatcttact caggtttggc 2460
agaagcgaga actgtgccac gcggtggcca cctcgtccca cagaggacc aaggcggtc 2520
tcccagcct tcagtgtccg ggagattcac gggctgtccg ggggccacgg tgcggactgt 2580
ggagtacaga cgccgtgtcc acgacgccgc cggtcacgga ggcccacctg aggtgccgcc 2640
acgtctcttg caggaaagcc ctactcgtt accagatgct cttcaggcac atgttctatt 2700
gcaagcacgt ggagcggcag ctctgcagcg tctggatcag caacaaaacc gccaaagcagc 2760
actcgtgca ctccgccag tgggtgcgttc ttcctctgcc cccgcatgcc ctctgaagc 2820
agcgtcgtt gcactctgcc cagtgggtgca gcgccccct tttgccctcc tggtagacag 2880
ctttctaggc ttctggaagt gtcacttgga agcgcacgtt ggtggcttta gatccataat 2940
gcttcattgc ttcattttcc tgtcttgggg ctgcacggcg ctgccgtcca cccacaggg 3000

gatgctggct ctgtccctca gccctttctg gagccttgtg gtgactgcac gggcatggag 3060
 actgcccagg tcggcgtgca ggacactagc tcctcccgag agcggtcagc cacatcttgc 3120
 tgggaccaga ggtgctttgc agccgggtctg tgcctctagg gtgttgaaaa aaggggtcga 3180
 tggcagagct tcataagaat ttgtccagtc ggggtgcagt gctcatgcct gtaatctcag 3240
 cactttggga agctgaggag ggaggattgt ttgagccac aagttcgaga cccgcctgga 3300
 caatgtaaca agagctcatc tctt 3324

<210> 1675

<211> 3957

<212> DNA

<213> Homo sapiens

<400> 1675

ctagtttaca gcttactgct cgacctccca ggacccgagg gcttgggcag gccccacacg 60
 tcctccagaa catcctcggg gggagacgga gcagacagag tagaggccac acgtgtgtgt 120
 gcacatcaga gtgtctccta cccatgttgg cagcagcgcg gccctccggg catccctggc 180
 tgtatcagct gcgccgtgag tgttggctgt ctacacgcc agctttcccg gagttgccgc 240
 tgggtgccga gcacctgctc actgcacgga gcagggtggct cttcttgggc ggctttgcct 300
 gccgcagtcc ccgagcctcc tctcctcagc tgggcgtgtg tgggaatgcc caaccggggg 360
 cctccacggg gcctatagcc tccacgtttg ggctactgc ccttggacc agggtcaca 420
 gtccaggaag cctgggccag tgggggactc ctggggtgca tgtaacactg agaatcatgt 480
 agataatttg ggggtgttga gcacgcatgg cctgtgggga gtctggccgg cttgcctcat 540
 gtggacccc caccacctg gggcagagga gggggccggc tgttggggcc gtcattgaag 600
 cactagggtt aactagggc aggcccatg tcccctctgg aactcctcac agttcacacc 660
 ttgaagccca ggcacttgcg atgggaccag cgaggtcaaa tgcaggacc ctggtcctca 720
 ctgttaccat gaagtgatgc aaatggccgg tcttcagaaa ccagagctag cccacccgt 780
 gccaccaagg cacaccagcc cctgagcagt cgcagggcc aggcagaagg gtccggcagg 840
 ctctcactc atgacgtggc ctgagggggc tgggcagctg gtcctcggag cccccacctg 900

gtgcaccagg ccgtgaacct cagcaaaggc cccgtctctt gatgcccaag gtttggcaat 960
ggttgggggt tactttctcc agaccacagc accctcgagg ccaacactgg ggaaagctgg 1020
agccccctgct cttcaccccc acctcccagg gctgttgaac cccaaggagc accagaccca 1080
ggaccccccc aggagggcca gaggcaggaa gtgcctgatg gtgccagggg aggggtggatg 1140
cctgactagg gcctgaaaac agagggcata gcttccaata aagcatggaa agaaaacagc 1200
atgaatggac cagaagtgtc tccattggg agaaagaaga gcactcaca cctcttctgc 1260
cccaggctgc ttggagtggg ccagcgccag agcagtcctt gcaccagccg agccgtccga 1320
gcttgtcgac tatcaggga ggtgtgagcc ttcggctgag tgggtgctggg agctggggag 1380
agccgagcac tgcccggggc ctcttgagtg ctctgccacc cggctgggca gggaaggag 1440
ggccccctac agaggacacc cttgtgtgtc tggggctgcc tttgtgaccg agggggacgt 1500
atgtgtgtca ccatcatcct gcacgactgc ttcctgactt tggaaccgt gtttgccctt 1560
gtgttttggg tgtggacctg gaccccagtg gcccttcccc aaaggtcgtg tgaccaccac 1620
caccttcccg tgtcccgta cgcacacctg tgctcacctg ggtgccaggc agtggcccag 1680
cagggaggag gagggtagc aggtggcaaa atgcccattc ctcggtcca gcctctgtgt 1740
ggctgaggcc ccgcacgtaa ctctccacgc tgggcatcgg cctggactgt gcctgggtgc 1800
tccctgaggc ccgggtggga ggcagctgct ccaggactct cagtgtcca gtctgtgccg 1860
tcagcaggag gatcaggagc ctccccctga ccctatttaa taagctcttg ctcgttcctg 1920
cttggggtagc atgaaacaga aacagccgaa ttgtcaaagg tgtgattgat aacgtgaatt 1980
agacaagacc gggctattgg atcagttgaa ttgatcactc aaatgtgctt ggactgacca 2040
agtgtgtcat gaaagcttgc ctggctcagc cctcccaccc ggacaccagc ggtgggtacc 2100
gaggatgcca agccctgacc tgattgtctg gcacccaggg agggggatgc caggcaggct 2160
cgtgccacat acgtgagccg cagccccaga ccaaccatgg gaggagccac tcaccccaaa 2220
ggcgggctct gcacctctgc atttctcatg actcgagtgt gtctggcttc ccctgcccag 2280
ccacagcctc actgggtact caccctggac gccatattgc agctgggtgtc agccctgccc 2340
cgcagctcca cctccctcct cctgaaagcc cggggcacct tccagaggcc gagcaggtgg 2400
aagggggcag agaccagaca tcgccattct catcactgac ggtgacgggg gccccggacg 2460
ccctgaagag ccctcagctg tgcgctgact cgcgcctctc cccgtccagc gtgaatgaga 2520
tgagagacag tgaggacaat ggtcccagga agggaccctc aagagatgcc aatcaaatgc 2580
gttgactct caccagttt ggtgggaacg tctggagtca taggacagag agctgagggg 2640

gcaaggctga ggggaggtgc tctgtgatg caagggtgcc cacggcctcc aacagggcat 2700
ggcatggcct ccaggcatgc cgtgcagcag cagtcagggc agcccatgga ctctgcgcca 2760
gtccttggtg gctgaagccc agaaccactc tcacctgacc ccacatgtgg tcagctctgg 2820
ggcccccatc cactgtagtt gccagtgtgg atggtgcttg cccagagccc aggggtggcac 2880
ggtgaaccgg actctgatct tcagggaac tgtctaggcc gatggggtga cgtcagtgg 2940
gcgctcagct tggaacactg caggaatgca gccgggtggg tgctggctgg gatcttgggg 3000
tctgggagct ggaggaacaa gagcctcagg agcaagggcc ctgtccagac agcagccggg 3060
cctctgcccc cctggcacc cgagctggct gccagcctc tcctgaagct gagagctgcc 3120
tttttgctgc ctccgggcac ccacgcgggc tgccagttgt ctcggtcgg agccccctgc 3180
ctggaggcgt gagccgtgct ccagccagc agctgtgagt tgccccacc ctgccccagc 3240
ccttcatgta ctgtggctct ccctggcctt tggggcaatc cagtcgcctt caggactgtc 3300
tgcagaggcc ctgtctccct gcagccagag agagctccag cgccatccac ttgtccctga 3360
tctgccacac tcctcagccc tggccctcgg cctctgctgt ctcttccac acatcccagg 3420
gcccaggatc cgtggagaag cccagaagg cacacgctgc gccctgcaga cctgccaccg 3480
ctgcctcggg gttcccctgg gaaaggcacc cagggagggc cgggcaggga agcaggagcc 3540
cacttggtc ctgccagaga gtgaacagaa gcaaaacgtg cttttggtta atttttcttc 3600
taatagaagt aattcagagt caaatgaaat accattttaa tttccatga aaataatcac 3660
cctgctatct cacatgattt tcccaggctt tgttgtatga cttggaaacc aggcttggtta 3720
tgaaggaggc agagttgggg tgtacagcga acaggcatct ctccaagct cacgggcaca 3780
ttttttcaaa ctgtgttttt taattggcct cttcatgtat aaatgaacag tgtaacggac 3840
aagcagggca ccttaatccc aacgccacag tcggccagtt tgcgggttca ggcctccttt 3900
atgatacatg ccacaaacac aatatctttg tattaaaagg attttttttt tttgctg 3957

<210> 1676

<211> 3032

<212> DNA

<213> Homo sapiens

<400> 1676

ttcttttttt gagacggagt ctctctctgt caccacaggct ggagtgcagt ggtacgatct 60
cggctcactg caagcgccgc ctctgggtt cagccattc tcccgctca gcctcctgag 120
tagctgggac tacaggtgcc tgccatcacg ccctgctaata tttgtttttg tagttttagt 180
agagacgggg tttcaccgtg ttagccagga tggctctgat ctctgacct cgtgatcagc 240
ctgccaaagt gctgggatta caggcatgag ccaccgcacc ccgccttcgt agaccatttt 300
ttgaaaatac tttccttttt tcattggatt ccctttgtag tttttcaaata atcaatcaat 360
gatacttggt ttgatctaata tcatacactt ttttttttga gacaactttg ctctgtcgcc 420
caggatggag tgctgtggcg tgattcagac tcaactgcaac ctccacctcc tgggttcgtg 480
caattctcat gcttcagcct cctgagtagc tgggattaca ggcccatcac catgcctggc 540
taatttttgt attttcagta gagatgggtt tttgccatgt tggccaggct ggtctcaaac 600
tcctggcctc aagagatcca cctgcctcca tttcccaaata tgctgggttt acaagcgtga 660
gccaccacac ccagcctcat ttgttcatac agtgtattat atagaattta tgtttttgtc 720
tgttttttat gcattacctc actgtcttag ttcccttaca gtattttttg aaatttagta 780
gtgtaggctc tccacctttg ttctttattt ttagagttat tttggctgtt ttaattccat 840
tcctttttcc ttataaattt tacaatcagc ttattgattt tccagaaaaa aatcattttg 900
agtgagattg catcattctg tagatcagtt tgggcagatg tattgcttgt ttggccatat 960
tgtcagagaa tacggttagt ttaatttctt cctttcttat gcatatgtct catgggttcc 1020
cctcccccca tccagttgta ctggttcgga cttcaagtat gctgttgagt acatatggta 1080
aaagttaactc ttcctttctt ttctcaatct taagatctta tgaaacattg tctttcataa 1140
ttagatatgt tactagctgg agctcttttt tagatatgtg atagtaagtt gaggaagttc 1200
cagtttggtt ctaacttgct aagaccttaa aaaaattatg aatgtctctg gattttgtta 1260
gatgtttccc tgcactgtgt gaaatgaaca tagattgttt cttctttcat ctgttcatac 1320
gttgaattat attggtgttt tctaaagagt tgagatctca ctatgttgcc caggctggct 1380
ttgaactcct gagttcaagc aggctttcag tctcattctg ttcttagctg gcccaatcgg 1440
catatgccac tacaccaagt ttgatttttt ttgctaagtg tcagttaatg tgcattctca 1500
aggtagacac ccttggtcat aacatatcag tccattttat aacttgctga atttattctc 1560
tgaatttatt ctgaaagagg ttgtgtaata tgtgtattgt cacttactta agtatttggg 1620
agcatttgcc attgaagcat cctgtggcta gagttttctt tgccccaaaa attttcaact 1680

tattttctag gtcttgact attcaggttt tctcttcttg attgagcttt ggtaattttg 1740
tgaaggaagt tgttccttta cattgttgta tttgttagtg gaaatatgta tatgtattaa 1800
tgtttatagg atctataagt ttccttcatt tctgatgttg gtaattttta tctttttttg 1860
gggtcattct ggctagaagt tcatcaatat tatttcaaaa aaaggcagct tatagattat 1920
ttcttctttt ctactttctt tgaatttaaat ttgatcttta tggcttagat aattgatttt 1980
agacctttct tttctaatac aagcatttga caaagtcaga attggtctat atagactata 2040
tagactacat acatttaatg taattattga catgctggat taaaattgat cattttgcta 2100
tttttctatt tatttcatct atttttgatt ccttttaaga aatctttttc tgttgacttt 2160
tgaattaagc aacttttaaa ataatttcat ttccatcctt atttataact gaatttctta 2220
tttatttttg agacagtgtt tgtttgctct gtcgcacagg ttggagcgta gtggtgcat 2280
cttggctctc tgcaacctcc gccttctggg ttcacgtgat tttcgtgcct taacttgccg 2340
aatagctggg attacaggct tctgctatgc tactacacac ggctaatttt tgtatatattt 2400
gtaggcgtag tttcaccagg ttggccaggg tagtctcgaa ctctgagct caagcaatcc 2460
accctgtca ctggcattac aggcatgagc cactgtgccc ggcctataac cgaaaaattt 2520
ttaatattag ttgtcctagt tttaacaagat atacctttat ttaatcacat tccacttta 2580
aatattattc cgttcatgta taatgtcaga acttaacagt gtagtttcag ttcctttctt 2640
ccgtcttttg tgacatagtt gtcatgtttt tactgtttat atatgctata aacacaatac 2700
tgtgcaacct tttttttatt ttttattttt ttgctttaga cagtctttgt ttgttttttg 2760
aaatagactt tcgctctgtc acccaggcta gagtgcagtt gtgtgatctc gactcgctgc 2820
agcctcctcc tcctgggttc atgcaattct catgcttcgg cctcctgagt agctgggatt 2880
acaggcccat caccatccct ttctccggct ggctgggtcg ggggcatccc tctctgtcgc 2940
tggttccag aggcaggaca ggcctcctgg taagcccga aagttgctga cctcctgact 3000
tcgtctgcct tttattaata tctgtattgc tg 3032

<210> 1677

<211> 3764

<212> DNA

<213> Homo sapiens

<400> 1677

gaataaaaag gatcttccta aaagctcttt ctgatgcact tttttttctt ttttttttga 60
gacggagttt cgctcttggt acccaggctg gaatgcagtg gcacaatctc ggctcactgc 120
aacctctgcc tcctaggttc aagcgattct cctgcctcag cctcccgatt agctgggatt 180
acaggcatgc gccaccacgc ctgactaatt ttgtatTTTT agtagagacg gggtttctcc 240
aggttgggtca ggctgggtct gaactcccga cctcagggtga tccgcctgcc tcagcctccc 300
aaagtgctgg gattacaggc gtgagcccg atcagaggcg cctggcctcc gatgcactct 360
tgagtatTTT tgtaaaatta gagattgttg gacagtgtca aggagaatga attatagtga 420
ttgggtccag tgacacttgg atagtgtctac taagtatgaa attatTTTaa gagagtTTaa 480
agaacgacct cctgctgatg agagtgttgg aaagtgtggt gctgtgtgtaag gtcagctaca 540
catgcctcct ggTTTTgt tttgttgaat aagagaaaag agagtagcca attgtaaagt 600
gtcgtattcc tagttgatca gggcttgcta aaaaaaagac agtcgaagcc gttgattcca 660
ttaccgtaca tataagagtt ttaaccagga ttagtagccc acatgaagta gaaatagaaa 720
ggccaaccaa agaactagt attctaaggt aaaatttcca gaaatgtgga aaagaacact 780
tgagattgga gatggtacca gttttatata aatgggtgatt gatagctgtt aaggtttgat 840
gagaaaaggt cacgtatgtc tgtttctttc acaagtttgt tcccctgata cttctttctt 900
ttttttctg agacagtctc gctgtgtcac ccaggctaga gtgcagtggc acgatctcgg 960
ctcactgcaa cctccacctc ctgggttcaa gggattctcc tgcctcagcc tccaagtag 1020
ctgggactac aggcgcccac catcatgccc agctaatttt tgtatTTTTa gtagagacgg 1080
ggtttacta tgttggccag gctgggtctg aactcctgac ctcgtgatct gccgcctca 1140
gcctcccaaa gtgctgggat tacaggcatg agccactgca cccggcctgt tcccctgata 1200
tttctaagtc actgtttatt aaagcatgta agcctaagca taaaagttaa ttttttttt 1260
aagagacagg gtcttgctct gtcacctaga ctatagtga gtggcgccat cacggctcac 1320
tgcagcctca aactcctgag ctcaagcgat cctccagcct tagcctgtga gtagctggaa 1380
ctataggcac acaccatcat gtccagctaa gtttttttag ttttttaggg gtttctttgt 1440
gtgtgtgctt tttgtttctg tttgtcttg agacggggtc tccctctgtc cctcaggctg 1500
gagtgcattg gcatgattgc agctcactgc agcctcaacc tcccaggctc aatcaatcct 1560
cccaccacag ccttgtgagt agctgggact acagatgtgc actaccacac ctgactaatt 1620

tttggatttt tagtagagac aggttttcgc cacgtggccc cagctggctc tggactcctg 1680
ggctcaacct atccaccggc cttggcctcc taaagtgtcg ggattacaga tgtgagccac 1740
cgtgcctggc caaagttatt attatTTTT taaagtaaac atgtactgca gttacctgat 1800
gctaccacat attaaactgca tgaaaaatat tccatagaag tagaaagtcc ttttgactgt 1860
gaacttacaac acatgtgaat ggaaactatt atgagctata aattgaatat aattatTTTT 1920
ttcttaatga ctttgagaa gggatctgat acaagcttaa tatgaatact aaaaactgcc 1980
acttttagca actgaagcta aaatattgta agatcagaat actcccatct tgtggactga 2040
tagaaggcta tttattaca ttttggggaa aaaaatttct ttttttaatg tcttgagtca 2100
atttgaaaaa gtgtggtttt tttaaaaaa attttaatag aaataaaagt cataaagttt 2160
ttccttaaaa acttactgtt attaaaactt ctggcccata attgatttgt tggataatag 2220
tcattagtat agtgctatta tagcatttgc catcaaatg ccatttatat ggccaataca 2280
cataaaaaatt atccaatgaa actatttctc aaatataaat taaaactaga aaatggataa 2340
ttttttaaaa ctatactact atcaatttgc aactgtaaga ctagataaga tttgacatta 2400
ttgggagagc ctctctggaa agcaatttgg taatacattt caagagtcac taaaaaccag 2460
tcataaccag gtatggtaat gcacacctgt agtgccagct actgggtagg ttgaggcaag 2520
agaatcactt gagcctcaga gttcaaatcc agcctgggca atatagttag accttgtctc 2580
aaaaaaaaaa aaagtttaaa aacttgatga cttaaaaatg tactcctaga aaactatccc 2640
aaagcagaga tgactttcat aaaaggatgt ttttcaaaag gtaatttata agccacaaaa 2700
aaacccttg tttccaatat gtatattgga acaaatatgg gaagaaataa gttatgatag 2760
atcctcatat tataattagg tgccatttga tgataatatt ttcaaagaaa gataatatat 2820
tatcttgttt gaatattaag gaaaaactag tcaaacacca tagtatgctt tcaattttgt 2880
ataaaagata aaagaaacc atcagggccca ggcatgggtg ctcaagcctg taatcccagc 2940
actttgggag gctgaggcag gcagatcact tgagtttagg agtttgagac cagcctggct 3000
aacatgggtga aaccctgtct ctactaaaaa tacaaaaatc agccaggcct ggtggcgcac 3060
gcctgtaatc ccaactactt gggaggctga ggcagtagaa tcgcctggac ccgggaggca 3120
gaggttgacg tgagccgaga tcatgccact gtactccagc ctgggcaaca gcatgggact 3180
ctgtctcaaa aagaaaagaa gcatatgaaa atatagaaag gtatgactaa ataaagaaga 3240
aaagtgaaaa aatcatccat aatcgacca cttagagata gtaattgtta acattttatt 3300
gtgtattctc ccaaataatt tttatgcatg tgtagctcta tgcaggactg gttttcaagc 3360

```

acgctaataa atagccatgt caggtattta tttttatttt ttatttgtat ttatTTTTgt 3420
gggtTTTTtg agacagagtc tcaactctgtt gcctaggctg gagtgcactg gcacgatctc 3480
tgctcactgc tacctccacc tcctgggttc aggcaattct cctgcctcgg cctcccaggt 3540
ggctgggatt gcaggtacct accagcacgc ctggccagca tgggtggggcc ccgtctctac 3600
taaaaataca aaaaattagc agggcgtggt ggtgggtgcc tgtgattcca gctacttggg 3660
aggctgaggc aggagaatgg cttgaacctg ggaggcggag cttgcagtga gcccagaccg 3720
tgccactgta ctccagcctg ggcgacacag caacacttca tctc 3764

```

<210> 1678

<211> 3214

<212> DNA

<213> Homo sapiens

<400> 1678

```

gtacgaaaga gaaacccgga gggcgccggg gactgggccg gggctctgcag ggctcagctg 60
agcccatgag ctcccagagc taaccctga acaccaggc gggcaaaggg ctgatgtcgg 120
tagtccccat cctggagggg caggctctgc gcactctgtc ctggcatggc gctgcggcac 180
ctcgccctcc tggctggcct tctcgtggga gtcgccagca agtccatgga gaacacggac 240
actgatgtcc cagccccaga ggtgctgacc aggtccactg ctggtgtcag aggggcctgt 300
gcctcgcaga ggggagccct ccgctgcctg ctgggtgagc gcctgctcag gaatggctgg 360
gtcaggcggg gccccacgg tgaggcatcc tggcccga tgggagcacc tctgccagcg 420
gtgacagcac agcgtgccgc gcactcgtat cggggagtgt agctgcggcg gctccagact 480
cccaggcgga gcgggtggag ggtggggacc cctcactgtc ctggctgggg cgtttgaggg 540
accggacctg ggcccctccc tggcgggtgtg gattctatcc cgcactccgc agtcaccct 600
ggacgccctc accgttcaact gcattcaggt cacgagaaac agcacagctg tgatcaaac 660
acaagctgag ggtaccctga gccccccagg cctgtccagt ctgcctgtgg tcagggaatg 720
ggccctcaca cacaccgtaa gtgccagcac ccagcgcacc tgtgcagtac ctgggcacct 780
gggcgtgaat tcgtcccctg aaatgccagc caggccccgg cacttctct gtgggggtcaa 840

```

gcggaaaccc ctgatggaga gcctccggag acttgcagag aatgtcgggtg gcgctgccat 900
ggcctgcggg tgccgcctcc tgggggtggt ttactcttcc aggcccagct tttccttgga 960
gaccgcccac ccagggtccc acagggatgt gcaactgtggc tgtgaggccc ctccttgctc 1020
ccaggcccac aggggacaga gggccacccg atgtgactc cagaagaggc cggagctgcg 1080
gacattgaga tgtgtccca cggcacccct cagccgctgc tgctctgggc gtgagcctgc 1140
ctggcaggcg cgtcctggag tttcactgcc gtgtcccctc caggcccagc tgcccagatg 1200
ctgtgtggat gtggtgggcg tcaacgccag ctgcccaggc gcaagtctgt gtggtccagg 1260
ctgttacagg cgctggaacg cggacgggag cgccagctgc gtccgctgtg ggaacggaac 1320
cctcccagcc tacaacggct ccgagtgtag aagctttgct ggcccgggtg cgccattccc 1380
catgaacaga agctcaggga cccccggcg gccacatcct ggggctccgc gcgtggccgc 1440
ctccctcttc ctgggcacgt tcttcattag ctccggcctc atcctctccg tagctgggtt 1500
cttctacctc aagcgtcca gtaaacctcc cagggcctgc tacagaagaa acaaagctcc 1560
ggccctgcag cctggcgaag ccgctgcaat gatcccccg ccacagtcct caggtaacag 1620
cagctgtcgc atccccctgt ggggtttccc atctctgggc cagtcccagg gtgctctgtg 1680
ggtttgtccc caaacgggtt tgcttggtc tggatctcgg ccaccctgc ccgggtcccc 1740
aggagaccca cccacaaggc agggccaggg ccggatttgg ctggtgcccc ctgctctgga 1800
tctcagctgg atttggccgg cgccccctgc ccgccccct ttaatccccg tgacttccat 1860
gtcttttctt gttcccaga cgtggggtct gcaggaaagg aggaccacc acgacagggc 1920
agacccccaa tacctgtctc tccttgaagt ccagctccac ccgaggacag acgcagccgg 1980
cctccgccag gccctcctga gcagccatcg cttcagtggg gctgggtcag gcggacccaa 2040
gagtcagccc gtacggaagc cgcgtactgt caggcgggag cggcccctgg acagggccac 2100
ggatcccgt gccttcccgg gggaggcccg tatcagcaat gtctgacctg gaggccgaga 2160
ccacgccacg cacttggcgg cagggacccg gaggccgacc ccttggcggg aaccagcaca 2220
aagtgttggc atcgcccggc gcccgggaca gtcctgggca cagcctcggc tctgggtccc 2280
tccgcctccc agcgacggac gccaaagggt cccgggccgc ctgaggctcc tccccaccac 2340
agccatctcg tttatcgga caggagcagg catccatgag acctcagagc ttcagatcga 2400
ggccttgggg ggtccgggcc cccccaggaa acacggtgag gcccagcgc ctgcagccaa 2460
agctggcacg atctatgggg cagggtccgc tctgcctaga aaagccaggg gctctgtctgc 2520
cgtgccctcc agagcccaca gcgggcagga ctctccagc accaccacac ccagtggccc 2580

gagacccctc tgagaacagt gaggctggtc ctcgtgccgt tccagccggt gcccggccag 2640
 tggggaggac acagcctagg aaccagctgc ctgagaccag ggtgcctctg ggctgtcctc 2700
 ccgcgtggcg gagaccccaa gcacgcagcc acccatttcc ggagctgcag gatagagctt 2760
 cctcttgatc tctgttttta agcagaaatt cattgtgcag aaaagtcctc cagagctctg 2820
 tggccccgct cggatccgct ggacccccat gcctggctga tccctgcca cgtggggcag 2880
 gcccacatct aacccccaca agtcaactgcc tcaactgcacc tgccaaggct gccctggcgc 2940
 tgagtcctgg ggtccctccc ggagttcctg ggagaaaggc gccgtcgtgg ccgcctcccg 3000
 cacgccaggc ccgggctcca ccgtgggtct cagacgccct gcggcaccgg caccgtctgc 3060
 tttagcatgg gacccccatc tgaggggtgg cctggccttc ggggtcccca cgctcctttg 3120
 cgaagtccac tgtgggtgcc atcatggtct ccgggacctg ggccagcggg aacgtggggg 3180
 cactgggtgt gctgatataa agtcggcatt actc 3214

<210> 1679

<211> 3581

<212> DNA

<213> Homo sapiens

<400> 1679

cagtcttttag tttcctcaag ttattctccc aaaaagacat tcgccttggc acagataagc 60
 cagctaattct tatgctttat gaccactgt gagctgttcc tgacacagct tctgactttg 120
 tcagtgacaa aatttctcac cttttaaatg cagtgttaa cattttgtta ggccatact 180
 caaaatcggc cagatataaa atgacctcag attttgatct cctaggctca gacgacctc 240
 ctgcctcagc ctcccagtg gctgggactg taggcacacc accatgcaca gctaattttt 300
 tttgtatttt tctgcggaga tggcgtttcg ccatgctgcc caggctagtc tcaaaatcct 360
 gggctcaggc ggtctgcccg cctcagcctc ccaagggtgt ggaactacag gcaagagcca 420
 ctgcgcccag ccacaacctc agatttcttt ggcaaacaga aatgtttaaa aacacaaaat 480
 tttgctcagg tgaaacactg tgttactatc aaatctcaca tccacataaa gtttttcttt 540
 tcggctttgt ttcgtgagga acagacagaa caaagttttt ccaggtagca tctgtatcac 600

tattattctc ctatttcctg taccaccccc acctcccca gccctactga atgtgaggtt 660
tagaatgttt taaggagggt caggtgcggt ggctcacgcc tgtaatcca gcactttggg 720
aggccaaggc gggcggatca cctgagtttg ggagttcgag accagcctga ccaacatgga 780
gaaaccctgt ctctactaaa aatacaaaat tagccaggcg tggtaggcaca tgcctgtaat 840
cccagctact taggaggctg aggcaggaga atcgcttgaa cccaggagga ggaggttgtg 900
gtgagccgag atcgtgccat tgcactccag cctgggtgac agagttagac tccatctcga 960
aaaaaaaaat aaaaaatta gctgggtgtg gtggtgcaca cctgtaatcc cagctactcg 1020
ggaggctgac gcaggagaat tgcttgaacc tgggaggtgg aggttgcagt gagccgagat 1080
cgcgccattg caatccagcc tggacaacag agtgagactc catctcaaaa aaaaaaaaaa 1140
aaaagaatgt ttaaggaat aaaatagtag tggtacatat aatcccaggt gataagacca 1200
caatggaaat gttaagtcc tcaacttaaa gagtaccaca ctgagaagag gtatgttgga 1260
ctctagcaga gatttggaat ctctgggaca ctcaagatgt gaaagagcct ggctatctga 1320
ggactcaaag agtcagcatc gggacttgtg agctcaagaa gagaaaaggg agtggtgaaa 1380
ctctgtccta aaagttagca ccaggaacag aagaaaaaaa cccgatatat agtgatacct 1440
catcttttag agaatgggaa gctatTTTTg tggtcacaca gaaagtatag ttcaaaaaac 1500
ctctatatcc agagttcaga caaggagaat gatttgagat ataagtgcg atgaaggagg 1560
tcaatttga tctgaaacca gcagctggac ctgggccacc tcaggaaaag gactctgttc 1620
tccaaggcag cacgactgaa tggttctgag aataagccag ggttcaggac tcctgacct 1680
ttaggacat ggactcagaa gagcctgaag gacaattgtg ggctttaaac ttctgagagc 1740
ttgtaaagta acacaagact gtgcctctcc ctgccccag ctgtagatag tctttgcccc 1800
accattgtta tgaagataca cagggttttg cagtttgaat aaattggata caagtttcct 1860
cttttttttt ttctttttga gacaaagtct cgctctgttt cccaggtg agtgcagtgg 1920
cacaatcaag gcttacttgc cgctcaacc tcctgggctc aagcaacgag ccactctccc 1980
gtcttagcct cccaactagc tgagactaca ggctgggctc accacacca gctaattttt 2040
gtactttttg tagagacagg gtctcaccat gttgccagg ctggtcctga actcctgggc 2100
tcaagtaat tgcacacctc agcctcccaa agtgttgggg ttacaggcgt gaggcaccgc 2160
ggctggcctg agtttcttct taatactgta tcacaattgt gggctgtctt atgtgttgat 2220
atcgattgag ctatttgaaa taggaatgtt aatgggtgta ttaaattttt gtaaggatat 2280
aacaatatct acctccaag gatgttgtga ggttttccat gattttgtat atgagctaat 2340

gttacctttg aggggtggtg tgcattatgt tggatgattg taaattttca gtggaaaatg 2400
taccgtgtcc taaattttaaa gacatgaaaa atatcccaag atcatactag atcataatag 2460
caatttccttt acaaatgaat tatggaggta actgatctct aacagtttcc ttcattgtgt 2520
tttaatgcac aagggcagag gatctgctga cccttggaa cagcgtgagc taaccacgtg 2580
ctatagacac ttcattggtgt cgcacccagg gaagtcaaag cgctttgctc cctcactgtc 2640
tgtgagtcct cagccattag taccacccc cccgctgctc caaaacttga gttatttcaa 2700
atgtttctca ctgttcatct ctccactgac cccactccag aaagcctgga gagagtccca 2760
agatgccacc caccttcccc aatccctcgc cacagatctg tgtctatctc acactctgta 2820
agtgccgctt tgcttcttcc tctcttgaaa agactgagaa cacacatttt aacatgttag 2880
gaaaatgggg cagcctaaaa aatgactgat cccaccgcca gtgactcatg tatactccag 2940
gctagcagac aaggcccttt ttgggtgggccc tgcttctgtg gggtcacaga aaccaaatta 3000
ctgtgggttg caaagaatta gcaggtcatt tacaagcag acatccctc acccagactg 3060
tggttttgca tgctcaggtt ctcagtctat gagctttggt gcaggatcat tttggctact 3120
ggaaaaacca tagcttattt taaatttctg gttgccaaag ccaccacacg tgtggtctgt 3180
ggatgaccat tgtctgcaga atgacgagga aggaacagaa tgtggtttgg ggctcagggt 3240
ggccttccca ctgggaggga aggcgggagg gagcccttgc cctgggtttt gacacagcct 3300
gtgtcacag cctctctct catctgcatt tctcagaaat gccctccctg cccagtgggtg 3360
actttccctc gtcactccta tggagtctta cctggagccc agccatgtgt ggaactgtga 3420
agtttactcc tctgtaaaga tggtttaaag aaagtcagct tctgaaatgt aacaatgcta 3480
acccttgctg gaaccctgta agaaatagcc ctgctgatag ttttctaggt ttatcatgtt 3540
tgatttttac actgaaaaat aaaaaaatcc tggtatgttt g 3581

<210> 1680

<211> 3119

<212> DNA

<213> Homo sapiens

<400> 1680

gcagtttttag tagagacggg gtttcaccgt gttagacagg atggtctcaa tctcctgatac 60
tcgttggatg cacagtattt tatttaacat attcgctgcc gatagacaag tcgtttctac 120
acgtgaattt cttttttttt tttttttgag actgagtctc attctgtcgc ccaggctgga 180
gtgcagtggc acgatctcgg ctgacggcaa cctctgcttc ccgggttcaa gcgattctcc 240
tgcctcagcc tccggagtag ctgggactgc gggcgcctgc catcacgctc ggctaatttt 300
tgtttgtttg tttttagtgg agacgggggtt tcacatgtt ggccagcctg gtcgtctcga 360
acctctgacc tcaagtgatc cgcccgcctc ggccctccaa agtgttggga ttacaggcgt 420
gagctaccgc gcccggcctc acatgtgaat ttttttaaaa acaccaccag caaaacccca 480
ctatttccat tttcctgaga aagacgctga ggtccagaga aagagaaaac gttctcataa 540
tttatgctga aagctgcgtc ctcaagttcc ggtttcccaa ctcccatccg cactccaact 600
gctcgcgcag tccacacagg atacctgccc gccaaagccgg cccagcaag ccgcagggag 660
ccgtccgctg aacctcaggt tcttgggttt tcctatgccc cctggaggca tctgcgaacc 720
tctcggcatac gctccaccac acctcccacc agcagggtggc actgttgcca tctccataac 780
atggactggc cttccttgtg gtgctcctgt tttcttaagt cccggggcac ttccggcact 840
cgcggaactt tgggtgcagc tgatgcgcaa cgtggggact caggcgcgct gggcggcagg 900
agttgcttcc ggccgtgttg gtggtctgaa ttgagaagcc gcgactaagg gaagatggag 960
acaatactgg agcagcagcg gcgctatcat gaggagaagg aacgggtcat ggacgtcatg 1020
gctaaagaga tgctcaccaa gaagtccacg ctccgggacc agatcaattc tgatcaccgc 1080
actcgggcca tgcaagatag gtatatggag gtcagtggga acctgaggga tttgtatgat 1140
gataaggatg gattacgaaa ggaggagctc aatgccattt caggacccaa tgagtttgct 1200
gaattctata atagactcaa gcaaataaag gaattccacc ggaagcacc aaatgagatc 1260
tgtgtgcaa tgtcagtga atttgaggaa ctctgaagg ctcgagagaa tccaagtga 1320
gaggcacaaa acttggtgga gttcacagat gaggagggat atggtcgta tctcgatctc 1380
catgactgtt acctcaagta cattaacctg aaggcatctg agaagctgga ttatatcaca 1440
tacctgtcca tctttgacca attatttgac attcctaaag aaaggaagaa tgcagagtat 1500
aagagatacc tagagatgct gcttgagtac cttcaggatt acacagatag agtgaagcct 1560
ctccaagatc agaatgaact ttttgggaag attcaggctg agtttgagaa gaaatgggag 1620
aatgggacct ttcctggatg gccgaaagag acaagcagtg ccctgacca tgctggagcc 1680
catcttgacc tctctgcatt ctctcctgg gaggagtgg cttctctggg tttggacaga 1740

ttgaaatctg ctctcttagc tttaggcttg aaatgtggcg ggaccctaga agagcgagcc 1800
cagagactat tcagtaccaa aggaaagtcc ctggagtcac ttgatacctc tttgtttgcc 1860
aaaaatccca agtcaaaggg caccaagcga gacactgaaa ggaacaaaga cattgctttt 1920
ctagaagccc agatctatga atatgtagag attctcgggg aacagcgaca tctcactcat 1980
gaaaatgtac agcgcaagca agccaggaca ggagaagggc gagaagaaga ggaagaagag 2040
cagatcagtg agagtgagag tgaagatgaa gagaacgaga tcatttaca ccccaaaaac 2100
ctgccacttg gctgggatgg caaacctatt ccctactggc tgtataagct tcatggccta 2160
aatatcaact acaactgtga gatttgtgga aactacacct accgagggcc caaagccttc 2220
cagcgacact ttgctgaatg gcgtcatgct catggcatga ggtgtttggg catcccaaac 2280
actgctcact ttgctaattg gacacagatt gaagatgctg tctccttgtg ggccaaactg 2340
aaattgcaga aggcttcaga acgatggcag cctgacactg aggaagaata tgaagactca 2400
agtgggaatg ttgtgaataa gaagacatac gaggatctga aaagacaagg actgctctag 2460
tgttgagggg tntagctcag cttttgggct agcccaggct tccctaagat ctgctttttc 2520
tatttctccc aaccaaacc tcttaaagac cctttgctat gtagtctcat ggtctagcat 2580
gcatcttgta gaaacaaggc atgctggcag attgcagggt tgagatgtgt tttatctgtt 2640
ttatatttta aaagattctg ccagaaaata aaaccagacc ttgttctaaa gcccagggtt 2700
atggaccaac tcagtgttc aggtcttaaat gcctccatac ctcttcctca ccaactttac 2760
tagtagctga gatttaattg gcacctatta tgctacatat catgttaggt aaatctgacc 2820
tgacctcttt cccaccctc ctttgttgct gcttcctga atgagtatta cccaggatg 2880
aggctctgcca tcagcttagt tagccattga tgcaaatact agggaaagac taggaggatg 2940
agccagggtt gctactaagg actaagtgtc gcaccaaggt ttgccttttg tatttgcata 3000
aagaaaggag ttggagctgg gtgcagtggc ttgtgcctgt agtcccagct acttgggagg 3060
ctgaggcagg agggttgctt gagactagcc taggtaacat agtgagacc tgtctcatt 3119

<210> 1681

<211> 3607

<212> DNA

<213> Homo sapiens

<400> 1681

tcagtggatg ctttgcaggc ctagagtagg atctggtgtg agctctgcca tggatttgtt 60
gtgtgacctc cagcaagccc agtgccctct cgggttctt ggttacttgg tcagtaaag 120
cacatttggg ctaaaggggt gtgtgagaca cccctagcc ttcaatgccc tggaccccca 180
gccttacttt gcaacgacct aggaagagat accatagata ggggcacaga agcagtgggc 240
atgccagggg acttcagaac agctggggga ggggtcagat tgcagggtgg ggcccagagg 300
acggctcaca ccctgggaag ggagctgagg acagtcccag ccctgggagg ggcagacagc 360
tggcagacag ggtcgagttg cggggcaggc cttggagctg ggaacagctg ggagagtttt 420
gtacactcct cgcccatccc tggttctgtg tgctccaagt gccatcaagg ccctggggac 480
ctcagctccc ccacccctg gcttctgggc cactccccag tgactgtctc ctcagtaagg 540
caggagggaa cctctaagaa aaagctggca acaggtgcat gggtaggatg gcaagagtga 600
gagccggccc tgagtcctgg acttgccaca ctgtgctgtg ggctggctgg cctcagcctc 660
ggtgcccag ggtggttatg gacctacaga agatgtgcag ggcctgagag cagccatctg 720
cattaggtgg ggcagggaga gcgggcctgg cctctgtgct cagcagccca ggcagtgtca 780
cccacccccg gtgacacagc ccgccctgct cccaagatct caggccagga agggctctgcc 840
catcacaggg agcaggactt cttgccaccc taaggggcca gggagcagat gtggcccact 900
cttcccaccc cgaccaaccc tgccacaccg acgcatctt cccgggtttg ccatccagtg 960
ctgagagcat ctctctaaag gcccctaagc tcccctaacc taaggccttg gcttgccagg 1020
agtgtcatgg ggagcaacgc acagacctgt gggtagccag catcagaaga cacactttag 1080
ggtcacacct gtggccttgg cctaagtggg ttagaggagc gtctggccac accctggact 1140
tagggctgca agctccgggg tggcccttgg cctccttaga agtccaagct gctctcttgg 1200
agcagtggca cctggttccc aaggttactg tgccctgggag gtcccttccc agtagcaacc 1260
acagcctaga aactgccc cagcctggcc ctctagaatg gccccgcca gctgcttttg 1320
atctttgttg aactaaagtc agctgagccc cgctagggag ccaggagcgc caggcccaga 1380
aaagcagcag ccgcagccgt agacatgtcc aagatgtttt ctggtggtgc atcttcagcg 1440
gggaggcggg aagggaacag gtgtgggcag gcagagctga gcagggtgc aggaggccgc 1500
ctccgggccc cagatggcat ctcaactgtg ggaagagtcc ccctgccctg gtcctgccc 1560
gcaggctggt ggccacctga agcaactgtc aggcctctggc cgttgactct tcctgctgga 1620

ctgaactcat ggccaagagt tcgttttggg ggagctcctt tttgtctccc caaaaatggc 1680
ctccttttatt tccaccctca agctgctggg ccccggctgg cctcacgttg gaggggcaga 1740
actgtagcca cagtggcacc tgccagatac ctaagctggg gctggatacc aggtgaagct 1800
cttacacatc gtgtcaaggc atcttggcag ccaccccagg gccgtcctt aggtagccct 1860
cgctttgcag atgaggaaac agtcacatgc tcaagtcaca ccgctaggaa gcggtggagt 1920
tatggttggg tccaggtctg tctagatcct gtgtcttgcc agtgcctgca ccccccttc 1980
cggccccgcc gattggcatc ttttcataaa cttgaagggc cccaagactc tctgcttagc 2040
tgagcagccc acagtcttcc tgagaccctt tcccaggctc accaggcctc agggcctgga 2100
aacagatact tcctagccca catggatctg ctctccaaa ccagtgaggc caaagggagg 2160
gagcagaaca tttcatgagg cactgctgga gggtgagtag gaacaggaca ggagcccaag 2220
gggatctcat cgccaggggc aagctaagca ctgggcttga cagggacagc aaggctaccg 2280
catfgcacca ttataggag catcatgcac actagctgtg cagtgcacaa cctgtgttgc 2340
tgtacagagc aactggagag ggtggcagca acaggaatgt aggagctgta ggcatgtcca 2400
gtggtgagac cggcattcct cctcccaggg acagtgagtg actgcaggcc ttggggcccc 2460
aacactcaaa aacaaatgtc ctgccaaagt gagggccccg cagaggctct tcagcaattc 2520
ccattttccc cagtcctagc cctgcctctc agagaaaggg ccaagctgcc acctccccct 2580
tctccccaga ccctgttcca ggccccagct ggcttcttgg ctggctgcta gccctggctt 2640
tcaccccaaa gggagccact cgtaaacagg aaatgcttcc caatgcgatg cctgctctgg 2700
gcgccatcgc cagcccacag gccgagggca atagccaagc agcagtgttg gctgttccca 2760
ccaactgcgg aagaggggga tgctcagggg ctccccagct ctggggcccc ccatgacgga 2820
agggttgcca ggctgagac agacgcccac aggccgagcc caccagcctg tggctctgcc 2880
tctgaccca ctgccctcca gcagtaacct ccctgtgagc tgatccctga cactgagcat 2940
ttctgtccc tcttcccaga gacagtctaa aggcagcccc caagtcccag aaagctgact 3000
cccctagcat cgactacgca gagctgtgc agcactttga gaaggtccag aacaagcacc 3060
tggaagtgcg gcaccagcgg agcgggctg gggaccacct ggaccggagg gttgtcctct 3120
gacaggcctg gcacggagga gggcccaccg agtgggtcca tgaaacacta agggctgtca 3180
cgccctcccg aggagctcaa ggacctgcct gtcaggacca gggctgggcc tgccaaccca 3240
gggcagtgtt ggggcccggag gctgtgtgt ctgcccgaagc tcctctcaga gtccagtccc 3300
caggcctcca gcgctgtcag ctgcacctg gcattctcac agagctggct gccacccag 3360

tggggggcta tagcctcaga gaccactcat cctctggaat caacctcttt ctaataccct 3420
 cttggaaaaa gagcttgccc ctctccagc acactagagc tctggccttg tgtgtatatg 3480
 tatacatacg tgaacacatg cctgtgtgtg tgtgtgtgtg tgtacttgta tgcacgtagg 3540
 caccagcaca aagatctgaa tgatgcaccc cacccccacc ccaataaaga aataacagaa 3600
 aaccctc 3607

<210> 1682

<211> 2781

<212> DNA

<213> Homo sapiens

<400> 1682

atggagggct gtcattgtta gattattgtt gataaaccgt tttgagattt tgaaatatac 60
 aaagctgcca gcttggaag taacagtcatt tgctatggac atgattggct ttgggggcat 120
 caagccctcc cagttcgtg tgtctacca gaacattctg ctccgagtc tgctgcagag 180
 cccaggaaat gctgacagca cctgtcaatt ttggcctcac cctatgagct catttaaaat 240
 caccaggat gctcattgtt tggatgggtc aaatcttcaa aatcaaatgg aaaaagaagc 300
 ctcttgcgta agataaaaga taatgaggaa aacatttcac ataaccaaag cattagaatg 360
 ttaagtcact tcatattaga ctttctact gtttcttcat tgtttgtttc tgttttttcc 420
 cagtaataaa ttagagttct ttttctgtg tggagcctgg ttatgaaacc ttgcataaga 480
 ctcttcatgt ttctgggcct tggctttctt atctgtgaaa tgaagatgga ggtcccttcc 540
 tgcttttctg tggttctgtg tgtacacatc cctaaagctt ttagaataca aatatccgct 600
 gatttgaaaa aacattagga gtcatttgag ctcccccag ctggagaatc atccacgtac 660
 gatgtgattc ttttaacaa gctctctcag tattgatttt ttcctttccc caagagctct 720
 gtaaaaatag tgttttcttg ccagagacat cagggcctca gaactactga ctcccttcta 780
 tgaacatatt atatggtttg tgtttggctt aggatctctt taacagacca tccagctcca 840
 ttgtgagagg ctgactcagc agagccctcc agaccgtcca gctccactgt gaaaggctga 900
 ctgagcagaa cctccagac cattcccact ctccgggatt agaatgccct tccctgccag 960

ccccggggcag gctaggagct ggtgctgcac ccatctctctg catgcaccct tgggggatgg 1020
cacactgcag cattgcctcc ttctgttccc aggactcaat gttgccaagt gccacgtagt 1080
ccaagaatcc cgccagtttg ctatagggtgt cttccagagc ctgtcgttag ggctcaggtt 1140
gaagcaggtc tgtcactttt gttcacagct tgttcaggga ccacctcggg gctctcagca 1200
atgtttctctc ccctgcgcct ggctcctggc ctgttcccca cgtctccatc ttacctctg 1260
gtccacccta gtgtttgcca gagattctct ttccttccc cttattgaaa tcctgacata 1320
atcccaaagg ttttaggagt gtaagattct acacgcatac ctcttcaagt gttttattat 1380
ggaaatTTTT gaatatattc aaaagtagag gaaacagtgt ggtcagcctc tatgtacctg 1440
tactcagct tcacgatctt atttcatctg cacctcttcc cggtaacttc atattatTTT 1500
gaagcaacat cccacgtgt catatcattt ctagttttct gtgttaaaga atccaaact 1560
cctcccagtt gactggagag aaagggtgtct gtgaattccc ctccagggtg catgtcactt 1620
agtccagcca cctctctcat ctcccaggct gccggtcagc ttgggagtcg gtgtccctcc 1680
ccgtttctgct gcagtcccct gctgtggggc actcggcagg agaacaggat cttttacgag 1740
tgggtagctt agctgagaag ggaaggctgt ttcaggcagg tcggggacaa ggcaggaaaa 1800
ggaaagggtc tgggtcacac ctactgtcg ggtccgctgg gcacactcg atttgtcctg 1860
agtatcagtc cctacagaac gaataagaaa ctccccagga caaaagggcc tgattcctgg 1920
gataccaaag ctgtgacctg acttccattc cagccccctc cttccccagt aacaggcgac 1980
accgttctcc tgcgagggat tcaacgcctc atcctttctc cttttcagat gcagtggcag 2040
aacgtggagc acgttgggtga ccagagcccc tacgtcacct ctgtcattct gcacatcaag 2100
cagaacgtcc ccatcatccg tgacaacctg gttccacac gcaagtactt cactcagttc 2160
tgcgttaaat ttgcaaagta agtcctgggg cgtgctcatc tctgggttct tgttctTTTT 2220
aatagacttt atgttttaga acagtttcag gttcacagcc aaattaagca gcaagcacag 2280
agatttcccg tgtacctgac ccccccaaca tgcacagtct tccattacc gacaccgcc 2340
cacacacaaa gtggcacatt cgttacagtg gatgaacctg catcaacacg tcattatcac 2400
ccggactctg acgtcgcgct ggacattccc tcggtttgga caaatgtaca gtgacgtgtg 2460
gccgccattt cagtgtcata ctcaactggg ttgtttttaa aaccatactt cccaccagca 2520
tcctcacaat ttgagtgtcc ccaccatcca gctgcggttt gttctggtgc ctgcagtact 2580
gattttaatt tgtacacaaa agaagcataa tcataaaact aaatctgcta cttaaagtca 2640
taggcaacag taacagcagt acaattgcc a gccacgtcaa ggcaacaaa aatgaatggg 2700

gcctactgtt gttttgaact gtgcaggcat aagctctcct tgcccaggat tggataatta 2760
aaattctttt tcagggattt c 2781

<210> 1683

<211> 2817

<212> DNA

<213> Homo sapiens

<400> 1683

attgttgtta tgattactac ctcacctttt actgcttgcc tagatgtatg tgtgccacat 60
cccaaccact ggttcctaac tcaccccagg ctctcctgtc cttgtgcctc tgtttataca 120
ggtttctctg cccagcatat tttccctttc ttacttcccc tgccattcat ttattcatct 180
ccattcattht attcatctcc attcattttat tcatcaaata cttatgggga gcatccatga 240
tgtgccagtc ctattggcct gttgggctca tctcagacac agctttggtg actgtcctag 300
tgggaagggc cctctgcac cccacaggc ctgcaggccc atgctttgct gtggccacat 360
ataacgcaca gggccctctc tcagtcactc ctgttctcct cttttccacg ttggctcctag 420
tacatcattht cccatggagg agctatgtga acagagactg aattgaggga aatcacttht 480
ggaatcccag ccctctctc aggcgccagt ggagcatgag ctgtgctgtg gatgaagtcc 540
gttggcacag tgagtcctg ggatggaacc tgcactcgct gcttgacca tggctgggtg 600
agtggatgaag cggtcagcac aagcttctag cccaggcttc cctcttagca gcatgtggcc 660
ttgggcatgt cacagagtct cccttccctc tccccattht tctcttctgt caaccgagca 720
taactgacgc tacaatctca ctgacagatg gtgagcgagg atggagtga cgggcatgtg 780
cggctcttag ctccatgcat ggctcaccga cgttggccgc tcttgttatc attacagtga 840
tgattattag cttttctaca tgacagattc tcaaacctgg ctgctacca tgagaatcat 900
gtggacagcc cttaaacaaa gattcctggg ctccccctg aacttctgca ccagaactgc 960
caagatggag tccgggaatg tgtttagctac gtgctthttaa gacgactctg gtgcccagcc 1020
tgggaacca caaggggcat actcctggca tgggcaatgt ctgtgttag tggggccaaa 1080
tactgcccc ttgaatcaag aagtgcactc tatactgggc tgaatagtgt ccctcccaa 1140

aattcctgtc cacctggaat ccatgaatgt aaccttattt ggaaataggg tttttgcaga 1200
tataatcaag ttaagatgag gtcattgctgg aataagatgg gccataaatt caatgttaact 1260
gggtgtcctt ataagaagag gggaactttg tacacagaaa cagacataga tggaagttagg 1320
tcatttgcct gtggaggcag agattggagt gatgctgcc aagccaaga agcggctaca 1380
gaagctgaaa taggcaagga cggattcttc tctagaggct ctggaagggg cagacttctg 1440
acttccagaa ctgcgagaga atacattcct attgtttgaa cccctcaagt tgcggatgat 1500
ttgttacggc agccctagga aatgtgacag gctccaagtc acattttgag aatcctacac 1560
tgaggcagaa actctgctga tgaggccac tttgtgaata gttgacatgc ttccagcttt 1620
ataaacatca attcaaact tagaagagaa tttccccctc tgggcaaat gggcgttgac 1680
gtattttttt aaaatgggag ttaaattgctg aggggtataag gcacctctgg cccatatggg 1740
actggctgag tcccaggtct tctgtcttc cggccaggcc tgagcatgtg cagggaggag 1800
gccgacgact ggctgggcag atgcaaacct ccatttgtgt attgctacct ttccagagcc 1860
tcggggatgc tcggtggaca cctcacagga ggtgagattg acagagccgg ttctagtctt 1920
agctgtcttc ttccttctg aaggttctg gacaagtcac ctgatcttgt ggaacccaag 1980
tttctccacc tctaaatgga acacactaaa ttgttatgag tgagcatcag aggaaatcaa 2040
gagtgtgtga tttagctctg catgcaacgg gctctgtaga taattttcat tgcagttatt 2100
ttgacttcac tttggtgagt cgactacccc aggttttgaa atgaacacag ggaggcagaa 2160
tacgtgtgt aatcccaggc tacagtctg gagcctttat tgaaggagaa gacatttttt 2220
atttgaaga atgaaaaacg gaaggcgggg agcctatgtg gcatggaatt caagaaatgg 2280
agcaactggc cactggcgat gggaaggccc atggcagatt ctgcaaact ctctggagtt 2340
tctgcttgag ttcctgttcg ccgctgtgag cccctcactc tttcgttgct gagacacctt 2400
caccatggct caggaggcca catgctattc ctcagggtggc ggagggcaga gaccgaggga 2460
gtcggtaaaa aggagagggc tggaaaattc ctcttagcat aagaataaac agtgatttga 2520
atattcagtt gtgagggtta taaataactg tgagttttca ttgacgtgta agcggtgata 2580
cattttgtac aataattagt tatttgatta cttttgttt agcctgaagt agaggacaat 2640
tgacaaatgt gaatacctct gagactgatg gggcgagta aactaacttt atttattaca 2700
aaatgcaatt ttattaatat gaattgacag taattaattt gctggtgttg atgttgttaa 2760
taattgcatg taatttatga aatattcatg ctagagcaga ataaaataat gcacggg 2817

<210> 1684

<211> 2838

<212> DNA

<213> Homo sapiens

<400> 1684

ataacttgaa	aaatcctctc	cgtctccctt	ccctgcctcc	tttcctttcc	ctttcctctg	60
ccagtacaac	tagaccggc	gtctggcgtc	cccgggtgcc	agcattctgc	ggggcaggcg	120
gtgtggtacc	cacagcccct	gaacagcctg	cagggtgaaat	ggaaaatcaa	acaaaaccac	180
cagatccaag	gcctgatgct	cctcctgaat	acaattctca	ttttttacca	ggaccccctg	240
gaacagctgt	ccctccacct	actggctacc	caggaggctt	gcctatggga	tactacagtc	300
cacagcaacc	cagtaccttc	cctttgtacc	agccagttgg	tggtatccat	cctgtccggt	360
atcagcctgg	caaatacct	atgccaaatc	agtctgttcc	aataacatgg	atgccagggc	420
caactcctat	ggcaaaactgc	cctcctggtc	tggaatactt	agttcagctg	gaggtgcagt	480
gtcctcctgg	tgtcaccatt	ggctttgttg	cggaacattg	gaacctgtgc	agggcggtgt	540
acagcatcca	aatgagaag	aaagaaaatg	tgatgagagt	tcgtgggcca	tgctcaacct	600
atggctgtgg	ttcagattct	gtttttgagg	tcaaatccct	tgatggcata	tccaacatcg	660
gcagtattat	ccggaagtgg	aatggtttgt	tatcagcaat	ggcagatgct	gaccattttg	720
acattcactt	cccactagac	ctggatgtga	agatgaaagc	catgattttt	ggagcttgct	780
tcctcattga	cttcatgtat	tttgaaagat	ctccaccaca	acgttcaaga	tagagagaca	840
cagcaagcca	tcaactatgg	ttaattttga	aaaatggaaa	agttggattg	ggcttacagt	900
cagcactcag	ttatttgcaa	gtgtatttct	ttgctttgta	gagtattttt	attgggtgtt	960
aactttgaca	gctgagagtg	ggcttgcaag	aacacaatct	aaaagtgtgt	ttcaattgag	1020
tatctctcta	gtagaatagg	agttcatcct	gaaaagctgt	gactcattaa	cccagtaaac	1080
atatacaaag	taagcttaaa	acactataaa	catgagataa	gggaaaatga	atccagagtt	1140
ctcatattaa	taggtagtga	aacaataagg	cttttttagag	cagactttgt	tggcataaaa	1200
taacctggct	tctatcccta	accctttcct	acctttcctc	tccgtcaaca	tgctctcata	1260
ctgaagacaa	acttgtttca	atgatagtct	tcattttcaa	aaacaaaaag	gcaggcagac	1320

agaaataatg atgttttctt gcactaagaa ggtactactt gtacacatat atcaaaacct 1380
cattctgcaa agtttttgaa ggtttcaatg ggaaatttga ttttattaca aaataaaaca 1440
ttttttaatg ttaaagttaa tatattccat gcttgttttc tcatcactg gcatggatga 1500
tcaggagctg cctatatatg aaggcagaat cagactatca ggaaaggagc tggccagggc 1560
cacagccagt caagatctct gagcaactta gagacattgg tgtcattata tgaagcttgc 1620
atttaataca ttatacata atacatttgt acatttaatt cataacgtct cttggtcaca 1680
gatgccttat atataaaata agttgccaga tctctaagat tgcctagtac acctttgtat 1740
ctcatttgat gtgataccca gaagagatca ttgttttttg tttttgtttt tgtttttttc 1800
aagaagatcc ttcgtgatca ccatgctgtt ctcattggtta gaactggagt tatgttttta 1860
aatttggaat tatgacattt tatgtagcac ttataaaaa gtgaaagcga caaattccac 1920
cgctgcttaa tactgctttg cttcttttta ttgacatgat agataaatat gtatctacac 1980
agagtaataa taataaaaca cagtaaacad tctatttctc tatggcttac agcatgccag 2040
taaataatat gtaggaccaa taataaatta tcaattacac attttttgtt taactaatta 2100
aaagcatagt gtataagtga gtacactcta attaacttgc ttctgttgca ctttagtttt 2160
ctacctgcat atggactgca tttttttttt taacacagtc agtatgtaga atgggatgta 2220
ttcttctgct gctgcttatt aaataaagaa agcctgagtg ttcttagatg gggttattct 2280
gagatgaggg tcttagccta cagttctttt tgaaatgaaa ggtgctttgt tttttaatta 2340
tattcatctt ttcagggtta atttgttttt ctgagtttct cgtaatgctc atttttacat 2400
gctgctacta gctttttttt ttaaaaaaag taaaagttgc tgctttctaa aatattaatt 2460
gccttatatt tgaaagtgcc attgcaatcg taagtagact atgtatttcc tataatgatg 2520
tctgatattt aataggaaa tcagacaaac aatattcaga aagttaaagc atataaactt 2580
tttattttta acttgcccta atccctgtat tccaaaacct gctgcatcat aataaatata 2640
tctatatata ttagcataa gacgtgatat ttttaatttc ttttttaaaa aattatattt 2700
gtctcttaga gttaaaattt tctttatata atattgtcat atgtcatagt ttaatacaa 2760
ttcacatgat ttctatgttt cttaatgata ttttgttgtg taaaattgat cggattgatt 2820
aaaaaacaaa ttctctgg 2838

<210> 1685

<211> 3480

<212> DNA

<213> Homo sapiens

<400> 1685

```
ttttgcctgt tagagcatgc aagctgagtt gaggtgaggc tggagatacg aatttcaaag 60
tcagagatgt ataaatatat tcagacccat gacactgaac tagaccacca acagggtata 120
tgtaagaaga gaagagaaaa tatcacaggg ctgagcccag agaattgtgca tgctcattta 180
cacatgagaa accgaggctt tagatggtta aatgacgtgc tctggatcat atctgcttcc 240
tcaagaccac aactgcttcc tttcccagtg aaaatctttc tttggattct tgatactaaa 300
ggagaaaaaa tctccatcct gaaattcctc aattcagctc tccagaaagt tctaggaatt 360
tgcaatgtgc ttcaggttgg aatggatttt ctactagcag cttttcagcc cttgtaagtt 420
cgttatatca tccaaatata tatectttcc tttttagtgt cctttaccct aaaattatag 480
atttcataaa catgtcacat tcattcactc aacaaacatt aaatggtcac ctattttgtg 540
catcatacac agatgataca aaaataagca agatcttccc ttgccttcaa agaactccca 600
gttttttgca aggaatagat atgttacaaa tacaatacaa tacgatttgc acattttttag 660
tagctcatat gtgacataga gaacggagca aataacttcc tcaggaagaa catcaggaag 720
acagcagaga aaagacaggg ttctgacagc actcctaggc agggttctga aaggtgaaca 780
gttctccagg tggccacgag gggactcaat gtcactccac tcaccagac ctccttcagc 840
tgggaggtgg tccctcagac tctaccacct gtcccagctc acatcctgtt gatattaaga 900
acatgataag cacatgttct tatggagcac aaggctggac atctggatcc ttccctttcc 960
tacagcatga tcctttgtct ctcatccatc aaccctgcc aagtcattac ctggtaccag 1020
gaaaggactc taaatacatg aaagtcccca ttggttctca aggccccaca atgaatcact 1080
ctggcctcag acatgacatt ttagtaagag accacgaatc ctactttaga aagaaagggc 1140
atagaggtat gatcactcct ggacacaaag ggaaaaatgcg gagaaattaa agggttataa 1200
ttagttataa agatatagga tcaacacaca cttattattg tttggtttcc taatcacgtc 1260
gtgattggat aatttcctgc tgtttgaaac caggacagag gttggtactg agcatattta 1320
atatcagcca caacatccaa aagtaacccc aggccacttt taatcctcta tcatttctga 1380
agtctcgctc tcctgaattg aggactgtac accagattct tactgttgga cctggcggca 1440
```

tcagctgctg catccactga atccacagag acatccgtga ccaggatgac caccgccttc 1500
gaggctccca gcctggcacc atgcatttct gaagtcaagt gtcgcacagc aaagcccaag 1560
gcatccccctg aggatggaga acagatcaca ccaagtcagt actgactgcg gctggacacc 1620
ctgtctcacg gtggatcctt aagtcactta aaagctgaat gattcagaga ctccaaggaa 1680
caccagttg agatctggag agacgtggaa gagcatctag cccctcactt tccaggggaa 1740
gaaactaagg ccaaggagca aagtgactgg ccaaggtcac acagtcactt atgccaaaaa 1800
taagaaccag aatgcagctt ctgcatccag cctgtggcac caacgttacc gatttggctg 1860
gggcctccct cccgctgcat gacgtccaga cggtcagca aatgggcttt ctccggggcc 1920
acgttccatg gcacgtcaat ggtggtgatg cttccatact ggagcactga cccctgagtg 1980
agatgaggcc ctaaaccgaa caagaaaatg gggattattc tgaatcaagt ggagcccaa 2040
aaagagcctc ttcgtcacct gctgcttcag gtgcctcact cactcaccta tattggcttt 2100
tgaaatgaaa gccttagcaa aactcttcat ttcataaaaa gaagaagctg ggaaactgga 2160
ggagccatcc aggagaagga tcacgtccag gggctggctg cagtctgcaa agataaccag 2220
gaagaagcac acacaataag aaaagatctt ccccgcaaa aggatcacag tttgtctccc 2280
tgccagggag gtgaggaaac acaggccctt tgaagctcat ccacaccgt catcacgatg 2340
accttcttct tcttcttcag gccctggacg tagcggacaa agttccggga catccgttgg 2400
ggctcctggc tggccatcag gaggaggcg atgcggaagg cttcagggcg gtcgatcttg 2460
ctgatgattt ggaacagtgt gtatttcaag gcctcgctgg tggaggccac ctggctgccc 2520
gcatacttca cccggctggc aacgcgccgc agctctgacg gtcgcttccg gtccttgagc 2580
ccgatgtagg cgtgggagcc gtcgtgttac tccaccacag ccacgcggac ccacttctag 2640
gagatgcgca gccgtccat catgtccacc acaaaggcct tcagcacttc aaactcagcc 2700
tcggacagcc tggaggagcc atccagcagg aagatcaggt ccagtagcct gctgcagtag 2760
aaatcgtgca acagcggttc tgagatgtcc tccacataca gagtgggtggg gtcaccggg 2820
gcatctgtgg gaggcaccac caggcctccc ggctcctggc aggcttcaca ggtgagggtg 2880
acaccatcac agtggctgca gaaaagagcg aagaaattaa aatggttcag aaagaaccta 2940
tggacacttc tgagccctac agtgtatgac tacttccata ttccacaga atctcctctg 3000
ttccacctga acttgagatc ccacggacca ttccacaccc aagtgagatg tactgttta 3060
acatctgtcc ccaaatagca tgcccccca cttcaaaaca cacacatagc cgacttcctt 3120
tgattctaga aaccaagct ttagcccatc ctaggatatg aaaaaatata ctcgttgttc 3180

taggcatcc acacagccac tcaaagctga tttcttttca acctacatct ttagcaacat 3240
gaataacttaa ttataatcta agccttctta caagtgtctc caagaacaaa tgttactaaa 3300
atgtagacgc taacctgtgc ttgtacatgt tctgttgaag ataaatgctt tacagtacat 3360
attctaacag aatgtaaatt gcatgagttt taaaacatgt ttaatacgtt gggccctaac 3420
gaagagagaa aaaattggag caaaaacatt gtggaaagat gaataaagat tcaaaacccc 3480

<210> 1686

<211> 3013

<212> DNA

<213> Homo sapiens

<400> 1686

cattgccctc tgccccgcag cctgcccgtt cccaggccag cgagggcgct cccaggccgg 60
tctgcagcca gaacacagcc cgttccatgt gcttgtctc gggacacatt aggaatgaac 120
ccaggcctca gtcctggcct cctcctcaag gctgggtgct cagacgtccc cctcagcccc 180
tttctctaga ccttccggct gaacaaacga gaacatctca cagccctgca acagccagga 240
gctgctcgtg gagctccacg cccggctgga gagagaggag gcaccctggg cagcccgcca 300
gcacccaggc tctcacagtg gaagcccacg tcttcttggg ctctattttg aaagctgttc 360
tttccacgac ggctttgaca agaatcgatt tgagtgaacc ggcgtgtcaa tacaggccag 420
cacaggactg gcctcagggc cacattgggg aggggtggcg ccaggccctg gctgcagccc 480
acgtgggcaa aagcatggcc aggcaggagg tggggcctgt gagcttggct acagcgaccg 540
tgggcgctgg gcccggggct cctcagccct gaggggagac ccaggcccag gcaggctccc 600
aggcgggctc ccgggctccc agccttccga tcttctccct ttgagacctt gccttctgca 660
cagtgcaggg aaagagccct gactccact ttgcagggat gtattgcatt tccagaaagt 720
tccttccggg tgcagagtga tacatgaacc ctggggactc actccaactt ggtattgatt 780
ttctccacgg aggaccagc agtcacggcc cgtgtctgca cagccccttg gatcctgcgg 840
aggaattcag ccggccctc cccctgtgcc gaaaaccacg gaggcaaagc caggccaggg 900
tacagtgaga acacgggaga ggactgagag accgctggct gccgagggag gaagagcagg 960

attgcacccc ccgtcatcgc tgggcccaca cgccgccgac agcttccgcg tgtggccatc 1020
tgtctttcag aaactctctg gcagagggac ccagcagatg acacgggggc cgttcacact 1080
ctgaaacctg cctggagtca aaacactgct ggcgagcctc caccgcaaac ccaatccaga 1140
tggtcttccc tggtggccct cggggtggcg ggcaccctgc cactccctg ccagcccctg 1200
cccgtggac tccaggcccc gtcgagcccc cgaccggtct cctgaccag catgctgctc 1260
tcccctgggc ccggcttcct cgcccgtgg gactcccagg cccctccagc ccagccccga 1320
gagcaggagc cccaaggag gcttggcggc tgtggaggcg agtggggccac gtgtagctgg 1380
gaggccggca ggaccaggag cccctcacag cgcagcacc acagcatcac gagccacttc 1440
cactcctggg tggcctgggg gccccaccc tgctctgagc tgcccctgt tgtgacctgg 1500
gggtccccgt ggtggggccg ccccttgagc ctgggatcca gcctcagcga ggctccagaa 1560
gtgtcgtctc cgccggccag gcgtcagcgc ctccaccag gatcacacac tcctatctct 1620
gcacttctgc cctccatcct gctccacgcc gcctctgctt gttattccag cacattccag 1680
ggatgatgcct gctgaagcca cgcagccagt gcctccacc tccccccat ctgaccacc 1740
ggccccctcc gcacgtgga agcctgccc gctgaagtg tcctcacctg tcgccctatc 1800
ctcccccca ctccagcca ccggtgactc agccctcaca gctctctct ccccgaggga 1860
gccggtgact tggctctgat ggtgccggga cccagcccc gcatgttcag aatccttgctc 1920
ctttaacctg cgtccacatg tagtcgcctc cacctccctg cctgaacctc caggccctgc 1980
agagcaaaca ctgctgcctg caggagacc ctggggcctt ctccgtccc tcctctctct 2040
aaggagcctc ccctgccacc gtgccagaat gtgccggagg aacagaggcc cgagcctccc 2100
gtggccccag cgaggcttcc tctggggaag acagtgagcc caacgccctg gctctcgagg 2160
ggtggacgga gtccagctgg catcaaccgg gtgcccctct tcaccggtgt ccacagtct 2220
tgagagcaaa gggttcccag aggcgacctc cctcctgcac aggcatttgt catccttacc 2280
ctctaggaca gctttgcat gtgcagtga cccctggaca gtgttgctg ccactttgcc 2340
ggatttggac tgtatacaga ccgaagcatg tggcatgaag ccttctgctg tcagcaagtt 2400
ccttgtccct cgacagtatg tgcccaggct gcccttcaag gtggcagtga tggcagttgt 2460
ctcttgacg ctgcgtacag ttctgtcact gactcttaca cacagccctg gagacgggag 2520
agtgccggga gcattctatg caagtgtcct ggcctttgcg ggcgtctcca cagcaciaaac 2580
acgagtcagg gaccaccct cttctgcttc catgattcca ccaactgggt ggggcagagc 2640
agtgccaggg ccggaggcac gccccaggtg agggcaggtg gccatgccag tgagtgcact 2700

gcgttctcag ttaattcatc cgaaatatatt ctaagtttct tgattattgc agttgcatcc 2760
 ccaagataat gccgccctca ccaagtagaa ggcacatgtg ctctgatggc ccctcccaca 2820
 ctgggggtcag ggcacagcaa cttagcgagg cgacgtgggg gctcagagga cctcggacca 2880
 ggctcggcac atggggcttc tccagccagc cagggggaag caccctgcag actgctaact 2940
 ttgcaaaat agagtaaaaa agatcagcta gaaaaataaa acaaaaaagg aaagatatac 3000
 aaaatacaag gcc 3013

<210> 1687

<211> 3144

<212> DNA

<213> Homo sapiens

<400> 1687

tttgagctgg ttagtttgct gttggagcgt ggtgccgac ccctgatagg aaccatgtac 60
 aggaatggaa ttctacaac ccccagggt gatatgaact ctctcagcca ggctgcagcc 120
 cacggacaca ggaatgtgtt ccgcaactg ctgcccagc cagagaagga gaagagtgtat 180
 atcctgtccc tggaggagat tctggccgag gggactgacc tggcggagac agccccgcc 240
 cccttgtgcg ccagccgcaa cagcaaggcc aaactgaggg ccctgaggga ggccatgtat 300
 cacagcgctg agcatggcta cgtggatgtc acaattgata tcaggagcat aggcgtcccg 360
 tggactctgc acacgtggct ggagtctttg cggatcgctt tccagcagca ccgcaggcct 420
 ctcatccagt gcttgtaaa ggagttaag accattcagg aggaggaata cacggaggag 480
 ctggttacc aaggcctgcc cctgatgttt gagatcctga aagcgagcaa gaatgaagtg 540
 atcagccagc agctgtgct catcttcaca cactgctacg ggccctacc catccccaag 600
 ctcacagaaa tcaaacggaa acagacctg cgcttggatc ctcatcttct taacaataaa 660
 gaaatgtctg atgttacatt tctggtagaa ggaagaccat tttatgtctc caaagtgtctg 720
 ttatttacag cctctccaag gticaaagca ctctctcca gcaagccgac aaatgatggc 780
 acctgcatag agattggtta tgtgaaatac tccatcttct agctggttat gcagtatctc 840
 tactatgggtg gccagagtc actgctcatt aaaaacaatg agatcatgga gcttctgtct 900

gctgctaagt ttttccagct ggaggctttg cagcgacact gtgagattat ctgtgcgaaa 960
agcatcaata ccgacaactg tgttgatatt tacaaccatg ccaagtttct tggagtcaca 1020
gagctctcag catattgcga aggctacttt ctcaaaaaca tgatggtcct cattgaaaac 1080
gaagcattca agcagctcct gtatgacaaa aatgggtgaag ggaccggcca ggatgtgctc 1140
caggacttac agaggacgtt ggccatcaga attcagtcca tccacttgct gtcttccaaa 1200
ggttccgtgg tatgaaacgc ctagtgcagg gaatgcttcc cgggaacttt ccagttctcc 1260
tgccgcattg gctttacaca aacacagaca aattccacct ggcacctgtt tttggctggg 1320
ccaaggggct gcctctactg ctcccacgtg ttctctgtga aaaacaaagg actttccact 1380
ggtctgcaga tcagatcagc tgggtccaga gtttaatggg caactggaca accaagttaa 1440
ccccaattga aagcaccctt aggaccattg aacaccact gccggggacc actgtccagt 1500
gaatggattg aggcctttta aaggctactc aggttccagg ttgacagttg gaggacttca 1560
ccgtaccaac cctgaagaga ttgtattaca cattaaggac cttggtagct gtgcttcagc 1620
aaacgtcaac catggttagca aattgggtgag gctgtgacca ataatgagga aataatctgg 1680
caaattttta ggggtgggaa ctttttttaa tgttcattta aaaaaaaca aaaacagggc 1740
agtctttagt tttaaaatat atttctaaaa gcttaacagt tcgttttcaa ctaaattgtg 1800
tttagggatc tgtgtttgag atttttcttt atttcttttt ttttttaa atagtaagtcac 1860
aggtccacac tgtgtaaaca tgcacttgat aagatactgc tgatattcta aacaagttga 1920
aataatcttg ccttagtgat catgattaca caaaagaggt gcactgcca taagtatctc 1980
taattcaata gttgaaagca acctgcatgc taatcgtggg ttcgggggtga gaataaaaca 2040
ccccacata acatgcattt gcatgggccc gaacctgtga aatgttacgt ttgtgcttca 2100
tttttgccaa ggtaaaaatg ttccatcatt tctagctaaa actccatttg gtgaaaccaa 2160
catatccatt tcttttctta gttacggatg atttggggat gcttttgcag aaatgtgttc 2220
atagatgatg ctgaatgggg gaggggggca gcacgtcaga gaatttacta ttaatccag 2280
agttttctct gtattctcag aagatgttaa tagtttgtta ctagccagag agtatgacta 2340
tgttagatta tttttaaaga tgaaacatgt atgataggat ggattctttc tgtattctga 2400
gagtgtacag tacaggatta ttataatgaa agtttatatc aacagggttt cgttggctct 2460
gccatatatt ataagcaaaa gagattggta aagtccaca gtattccaga taacttttca 2520
gttgcgccct ttcttctcgt tctttaattt gaaacctaga tacatgcagt aaaaactagg 2580
agaatgactt ttacccttgg ggacagccaa gttttgttga taaacctatt tcctagcatg 2640

ccttcaggaa gttgtgccag accctagatt gtgaaggacc cactgttctt ctgttgtacg 2700
 agctccctga accattgttc agaggaccaa tgtcacatcg cttcatgggc atggcccatg 2760
 gagcatctgg gtgatatctg tctacagtat tggctcttct gcgaggctga tacacaaggc 2820
 ctctcttcca catgatcatt tgcaaaccct cccagcccc taccatccaa tgtggaagga 2880
 aaacaagaac tgcctgaaga agagtccaag ctacagatac acagcgtgtg cattgcggct 2940
 gtcaccttcc tcctcccact tctgtatcct cagagatgct gcgtggatgt ttccttaacc 3000
 tcagctgact tccctgtgaa tgtctaatagc tagttcaggg cctccaggca ttgatttgta 3060
 cagtggtaac tccaatgag gcttctgtta tcatttggtg tgctttctct gtcattaaaa 3120
 gaaatgattt tcccagaaaa aaag 3144

<210> 1688

<211> 2991

<212> DNA

<213> Homo sapiens

<400> 1688

ttgtaacaa tacgaccca tggtcgttca gagaatcttc gcttcccga gagtgtgtcc 60
 cctccccag ccccggtggg cgcggaggta gctaatactg gtctggggtc agcagatctt 120
 ggttccccgc tttgggcat tctctgacct tcaactttca agtctgcgga atggaattga 180
 tgataccttc ttcaggagga ggatgggaga ctccagtac aacaaaacga ggcgcccgcc 240
 cgagacatcg ggagggatta cgttccccgc aacctctgtg tccccatcg tagagccaac 300
 ctggaccagg gcatggccgg caccagctca ggccgcgggt cccggcgccg gagggtagcc 360
 ccaccgtccc cgctcctgg gcgcattagg ccagcgaagg ctgcaccccg ccgcgggccc 420
 cgctctggct ggcatgcagg tggtagtagt ccctgcagac cgcgcctccc acaagctgca 480
 caaccaggtc gtctgcttag ccaggttta gtcctctgc ggagggtga tgagacgggtg 540
 gagcgggtgc ctccgggtct acttagtttt tacagctgcc gtttgttgac agaacagcca 600
 cctaaaggag agcttttagag ggaatgagtg ccctggaagg aggctctggg gtggggagaa 660
 gttggtctca tgggtcccca atttctttct ttctttcttt tccttccttc ctttcttttt 720

tcttttcttt tctttctttc tttccttttt ttttcttctt ttttttcttt cttctatttc 780
ctttcttctt ttcctttatt ttctttcttt ctttctttct ctcttttctt tctttttttg 840
acggagtctt actttgtcgc ccaggctgga gtgcagtggc gcgatctcgg ttcactgcaa 900
cctccgccat ccgggttcaa gcgattctcc tgcctcagcc tctcgagtac ctgggggttac 960
aggtgtatgg cgcaacgccc ggctaatttt ttgtgtttta gtggagatgg ggtttcacca 1020
tgttggccag gctagtcttg aactcctgac attgtgatcc gcccgcctcg gcctcccaaa 1080
gtgctgggat tacaggcgtg agctaccgcg ccagccccg agttctttct aggggtgggag 1140
gctgtgagtc tgtgacatca cggggatatt cttgggctgg ttccttgtct gtaagagcaa 1200
cgaagggact ttgtaccctg caaagtgcaa cttccgggga tgattgggaa gttgaggggt 1260
tgaatgcatt cacaccagag tcaactctcag ccagactctt ccgggtcacc tctaaggctg 1320
tgcactaggt gggcgtcaga ggtattacag gtaaaggaat ggcggctcag agggaaggag 1380
agacttgcct aacttcaggg caagctaacg cttgatttca acttgataaa tttctgagta 1440
tgcagtgggt gcacatagca gagacaggta atgagaagtt ttcttttttc cttttctttt 1500
tttgtggggg gtggggacag agtctcactc tgtcaccag gcaggagtgt agtggtgcaa 1560
tctcggctca ctgcaatctc cccccaccc acctccaggt tcaagcgatt cttgtgcctc 1620
agcctcctga gcagctggca ctacaggctg acgccaccac gctgggctaa gttttgtatt 1680
tttagtagag atggggtttc accatgttct acgtttcacc atgttggcca ggctggctctt 1740
ggactcctgg cctgaagtga tctgcctgcc tcagtgtccc aaaagtgtg ggattacagg 1800
cgtgagccac cgcaactcggc cgagaagttt ttctgattaa aaaaaatttt aaggcacaca 1860
cttcagcagt ggctgtgaag gaaccctgat gtgtatctaa actgtcgcct cgtgcacatc 1920
acccattac ttactctgtg ctaagtgtg tcatgcatta catcattact ccttagaaca 1980
ggcctatgag gtggagtctg cattaggccc attttggaca aggacaccaa tagtgtggga 2040
ggtggtgtac cttgccaag cccccagcag gtaagtgggt gtggggatta ggaccaggt 2100
cacttgagtc catatcctgg gctcttagtc ccactctgcc tggctgcctg ctgctccatg 2160
aagccaaccc tggacctaga cctggacctg gatcgtcata gccagatcc ctgtgtgctt 2220
cccaggctgc cttgtggcag gtggatgggt cccctcgaga tgggcagggc accatctggc 2280
cacacgtgcc tcatcgtgat gggtccaaag gtctgggcag gccaggacac acctctgtca 2340
accagagcag tgactcagag ctgtcggcct cagccgtaag ggcagggaga gggggcaggg 2400
gcttgggttg gggctctgcc tatttggggc acagcagagc gaccaggctg actcccatgg 2460

tctgaggcag agcgggggagc ctggagcctt ggggtggggtc acctgcctct cttcttactg 2520
 gttaagccac cagcgatgac tagtgcctac ttccttcaga gaggaatctg acggctgtgg 2580
 caggaaagtc aggggcaaga attgttgcac agatatgcta atatctcagt tctgccactt 2640
 tctgtaatct cgggtgggtga tctaatactgt ctaaggtcta ttttcccatc tgtaatgggg 2700
 aaaaaaatca tccctggagt tattggcagg attaaatgag gtgatattag taatgcaata 2760
 gtcaccacca tgccccacg aaaactaaca ttcattgaga ccttattgtg ttgggcattg 2820
 tgctcaggac ttcaaattggg tgacttcatt acatcctcac catcacctgc ccaggtaggc 2880
 atcatgtatt acctgcaact tacagataag gaaaccgtct tagagagggt atgcaacttg 2940
 ccctgccaaa attgaacca ttgtgaatat acagtagata aaaaaataa t 2991

<210> 1689

<211> 3956

<212> DNA

<213> Homo sapiens

<400> 1689

acgtactccc ctgcgtcctc tgcgcgcagc cccaacacag tgagtgagcg cacgggcccc 60
 tcggccacca tctggaagcg cttgcccacc cgaagctgcg tggtgccgca gcgccacacc 120
 acctctgcac acgctgggct tagctcgcag gccagtgtca ccgtgccacc cagctcgccg 180
 cacacaggct ccagcagccg gcagaacttg gcggccacct ctgtgggcac aaaggggaca 240
 tcagccgggc tcttaacaga ccagacttga gccccagctt cgcccctgtc cagctctggg 300
 acagaggtgt ctggaggagt ccccgcccca cgcccatgc ccggctcacc ttccacctgc 360
 actgggaagt cctgcccctc tgcgcccaca cggcagctgt agatggcgct gtccagaacc 420
 tgggcgccat gcacggtcag ggtgtgggtg tccccctggc tggctgtctc atgccgcttg 480
 ctgcggcgaa tctccacacc atccttgagc caggtcaccg tggccgcaga ggggtgtggc 540
 agtgtggcgg tcaggatgat gtcttcatgc tccttgacca ccagaggctc cctgcggcag 600
 ggtctctctg aaatttgggg ctccagctct gggtagaggt gagttggcat gagaggggga 660
 ccctgtcatc cctggaccgg ccccgctccc cttcagggcc accctaatac tacctggcac 720

ccctgatacc cattgctctt caaggatggc ccagtgcagt cctgagcacc atcaactacc 780
atccagaatc ccagggacca tacagtgtgg ccatcagctt caggcgaggt ggattcaccc 840
aaagcactga cctgccacgt gcaggcggaa ggacagccgt tggcccccg cctcacagct 900
gtactcccca gcatccgcct ggcccgcctg ctgcactacc agcctccgtg tgtagccgt 960
ggcctccatg cgcacttttg agctggagct cagcttcttc ccgtccttgt accatgtcac 1020
ctccatctgg ccctgggcca cctcacagct cagcgtggca ctggccccg cctccgcctg 1080
cacctccctg catgccggct gctccttggc aaacaccacc ttgggctctg ggatggacaa 1140
ggagggatgc agggtcagag gctccagagc agacacagcc catgtgtcag cccagtgaca 1200
gccaggcagg gctgtccatc attaagcagt gcacggtgac gcacagagct cccccggca 1260
ctaccagagc caaaggtcta aggctgcatg ttggcagcac catcatcatg tcccttggga 1320
acaggatgcg gccccttccc tgcctcggtc ttccagggcc ctggggccct cacctgtcgc 1380
cagccctccc caccacgcag ggccacaggc agtaggacgt gaagggtcag gagagatgga 1440
ccagcaacct gggccagccc agaggcagcg gagtgttggc agggccattg gaaagagggt 1500
gccaagctga gtgtggtctg ttgtccccag ctccaggaca ggggtggaagg gagatggata 1560
tcataaagac aggtggacac atggtgatga ccaaggggcc cagcacaggc ttacagagat 1620
ctagggccca gagcacagag acaagcccc accaccagct acacgctctc cagtactgc 1680
cgggccctcc catggcccag caccacaga ggagtcagca gatcacatta gaccagacc 1740
agacccccac cccaaggaca tcacaccact gtccccacca cccagacaga aatcatcaca 1800
tctgaccaga cccggacccc agacccccga ggacatcacg ctactgtccc taccaccag 1860
acaggggtcc tcacatgaga ccggaccag accccagacc cacacccaa ggacatcatg 1920
ctactgtccc taccacccc ggctcagcca ctgcaggga cacacatgg tcaactcagc 1980
ccatgggcct gctctagtct catgacataa ggacactggc ctgagagctg ctggggagag 2040
ctggggacac agattctgag gcctacatag agggaaaggtg ccagggccca cagcaccttg 2100
ggccgccccaa acatgccctt gtagtttcac acccgacact cagcatcacc tccattttgc 2160
ctaaccctgg caccaccag ccacatgcag atggaaggag agccgctggc cccagcctc 2220
gcagctgtac tccccggcgt ccgcctagcc tgccctctgc accaccagcc tccgtgtgca 2280
gcccacggcc tccacacgca ttttcgagct ggagctcagc ttcttcccgt cttgtacca 2340
cataacctcc gtctgggctt gggccacctc gcagctcagc atggtgctgg tccctgcctc 2400
agcctgcacc tccctgtgca ccggctgac cttggcaaac accacctgct ctttgcaaa 2460

caccgccttg ggctctgggg atggacaagg aaggacatac gaggtcaaag atacagccta 2520
ggtcaggaag accaccctag gataggaggg cctggatgag gaagtaggag aaacagaacc 2580
ttccccaggc tctgcaactgg ctgcgtggcc aggagaagtc ctgccacctc ccagcgcaag 2640
aatcacagtt tgtctatcca ctgtgcacgg cgccatgggc tatcacaggt ggggcagcta 2700
tgacaaaccc tccatgcatg agctcctcca gggcagggac tagggtacct gcacatgcgg 2760
ctcttcttca agcatgtatg gagctttaaa tccattgtc atttttcaac cttgcatccc 2820
ccaaaaccac atttgtttgg attttgattg agactgaacg tctttcattc ttccatggct 2880
tctatccact ttagatcttt actgtctctc aaaagtgtt catagcttcc cccacagaac 2940
ctctcgacat cttttattag actgggatca taaacatgat gcctttgagg cgtctgtcaa 3000
tcttttacgt tttcatttcc caactgcttg ctgctagtct acatgtacgg aagtttcttc 3060
acacagatct tgcaagggtt gatctttctc aactctctaa taatttatct tctaggtaaa 3120
ccgtatcttc tgtcaattca cttttttcta acttttacac ctttcgtttt actttcctcc 3180
taactgtgcc atccaatgct ggatggaagt gttgaccact ggcttcctca tgctgtcccc 3240
tggctcagag gcaaagctta caaagtctcc ctttgtgatt tttgtgtaat accctgtgtc 3300
aaattaggaa aaaaaaactt ttatttatac tttgttaaga attttatggc atgatggatg 3360
ctaaattttg ccagacattt cttctgaata tatgagggtta aatttttatc aaatatggta 3420
ctttattctg agtttaagat aattacattg ttttcaaatt tcaatcacat atcatgattt 3480
tctaagtgtt ttaacatgaa agcagccctc attcctagac tatgaatttc atcatcctgt 3540
atgattgtct tgatgtattg ctgaattcag tttactaatg ttttgtttaa aaaattggcc 3600
atgatatcca taattctttg atctacaatg tgcaaacttc ctatcttctg gccagatttt 3660
agtcattggc ttaagctatc tgcatataat gagttagagg gtatatcttc ctttttccat 3720
tctccagaag aatttccatg aacatggaag aatttctggc cagaacgttt ggaagaattt 3780
ctcagtaggg ccacatgttt gatgagaaga tttttcgcta ccggttctag tttttactag 3840
gttgtagtaa ctgagataac ttcagtaaca gtagataact gcatataggt tatctatttc 3900
ttaagtctgt ttttggtttc tagaaattat ataatttggt aacacttttc aaattt 3956

<210> 1690

<211> 3745

<212> DNA

<213> Homo sapiens

<400> 1690

```
catcactcct catgttggtg ctgatattgt atagtttccc ctgagcacgg tttcctggag    60
gaactggtag accgtggctc ctttgtgcct ctggtttccc cacatcccgt ttcctgagtg   120
gaaacctctc tccacggccc ctttctctcc ccatgccctg ctcatgctcg cacaaaagca   180
gaagggcctg gggacacact gggcatggct ctgtcgtgtc catttctgta tccaattat    240
tagcacaaca gccagcagga aggaggcctt gtatgaggcc agatacaggg cggaacttc     300
actcacagtt ctgccctgtc caaaagagac cgggcagggg tcagatagct ccagcagtgc    360
caccttatcc tcagggcact gcccttagct ccagactcct gaatgggcct atgaaagatg   420
ctgtcacttt tgcaactttc ctcaaagggt ctgggcaagg ggacacctca gggctgtgtt    480
tccaggggag gctgatgtga gggccaggta ttctggggat ggtttctcag cccactaact   540
tcagacaagg aggagaacac acctgttctt cctactggac aggaaaccaa acaactctgc    600
ttcctaagtt gccttggttt ctggggttat tggcatccga gtttgccagg agtggaaggc   660
ctgggacagg agaggcaggg gctggcaggc ctccctcttc acagctccaa gggttaaaaa   720
gcacttagca gcagcatata ataaaagcaa atgtaagaga aagaatatcc taaggattta   780
ataaactgca aacaaaatta tcacgattct tttcctagcc agttgagttt tcagtgatta   840
agaaaataca atttctgta attaaatctt aacaagaaat gttattaaaa acactctgtc    900
ccagctcctg tcataattgc atgctccctt agaacagtaa acagaattag actttgcagc   960
gtacatgcta atccatgtgt cattttgatc aaatttgtac taataacctg tcttcttatt  1020
ctgagatgag gaaggcaggg aagaggggagc caggcccaga gggcaaaact gagccctggc  1080
tggggagtg gagctgcgag tggtgggttt ggcccccagg atgataagtg ttgaacttac  1140
tgagcacata tgcacactgg gctctgtgct aaacagggtta cacatataac ttcacatatt  1200
ccttacacaa cctcacataa tgttgttatg ctcattttac agacgagaag actgaggctc  1260
agagaggttt ggtaacttgc ccaaggtcac tcagagtcac ctagatctaa ggccccagag  1320
tgtggctatg gggctattct agggcacggg ctgtcagggtg agaacattct ctgtcctgga  1380
gaactggact ggcctgacgg tagctggcag gaagaacttc cctctgccag gatgtgctgg  1440
ccacagaagc aaggagagact gtggcatcca ctttgagaag tttcttttcc tttgaaaaaa  1500
```

gccacaggggt gggagaggac attgtggagg ggctgagggt gagagcagag ggctgggggtt 1560
tgtatgggtgc agggtttctgt tcatggccct ggggtagacc tgagatgagc attctagcac 1620
agttaagagg gatcggcgtg ggtgtggagc cctggagttc aaaactgctg cccccacaca 1680
tgcgtgtgta tgtcagtgtg tgtgtgaatg tatgtgagt catgagtata tgtgtgagca 1740
tgtaggcaag tgtgtgagtt caccactgac cctgtgtatg agtgtgtaag tgcatgaatg 1800
tgtgtgagtc attgtgagca tgtgtgtgaa tgcaggcata ggagtgtgtg aatgtgtctg 1860
tgactgagtg tgtatgtgag cacataactg ggtgatgtgg ttgtatgcgg atgtcttgtg 1920
gagtgtgtga ctatgtgtaa aggtgtgaga gtggaagtgt atgaattggg tacatgtcaa 1980
tgtgtgcatg tgcagtgtg tgtgactata agggtagca tgtgagcatg gatgttagca 2040
tgggtgtgcc cctggagccc cagtctgctg gcgctgatgg aggggcagag ccaggccagc 2100
atgcgggccc tggctgtttt cctactcaca gcagccccct cccacagct tcattccctg 2160
cggaaagtga gcctgaaatt atcctcagct cgcacgctcc tgcacgcaca caggcgccag 2220
tgccctcatc tcccactccc ggtccactaa ttagctcttc taattaaatc cctgctgggt 2280
tggacaggga gggccttctc ttttccggat cctctgagga ccaggctcatg ctgacctaga 2340
aggctccacc cactatccc attccattc cacagccccct gctcctgctc agaggagcct 2400
ggatccaggg aagagacaga ggaggagggg acccctatgg gtaggagtcc tgttcagcaa 2460
acacaaaaca cctactatgt gccagtact gtgcaaagct ttctggggaa ggaggtggag 2520
atgacaaatg ggcaagacc aggggctccc cattctgagc ttccttctcc caatcactct 2580
ggctccgaac ctgtatctca tctccactc ttgtcccttc tggtagcccc aggcagcaac 2640
ctgccgcctc caccttatct cctcgcttct ctacagagag ttcctctttg accagacggc 2700
ctatgcattg ggccagctga gccctagatc attcctcctt tatcaaagtt ttaatcctct 2760
ctgaggctcc gtgcactcac ctgcagctc tcttgggagc ccttcctgac tgctgcgttt 2820
cctcccgtct gctggggcca gctccgggcc ttggcgtatg ccgcctgctt ccctttttat 2880
aggctccacc tgcctcacta aacatcttta agcctctgaa atcagaggcc gtgtcttgtg 2940
cctcttaacc ctttactgag cccagcacat tgtgagtact ctaagaatgt ctacggagtg 3000
actgacgaac caggaagatg gaggagatgg gttcctgcac tccctgtgct cgcccctgga 3060
gagctcctgt gatatggaag agaatccag gctcctggat ctcagcgtgg acaagactta 3120
gctgtcacct tgtctaactt ctcccttcga gcagagcctg ccacgggaat tctttgcaag 3180
tgacttattg tctctcagtg tgcctcttat tgtgtaagag tgaaggggtc aggataggcc 3240

gggggcaagc tgagcgagga cgaggcctga gccggcgggga ggctctggac catggacagc 3300
 atcacagagt cggcccctgg aggcaagagg gcggcttctt attccccgca tcaggcagtc 3360
 accggctgcc aggagccggg gtcggggagg agcggagcct ctccagaatc agggcaaggt 3420
 ggctgagagc agttctctag aaaagggggc tgctgtgagc tgtagcagc agatgccgat 3480
 tttggggcct ggtaaggggg tgtgggcgag cccaagagc atccaccaca tccccacca 3540
 gaatgtactt tgtactagtc gtggttcctg agcctgtccg agaagagcgg ggaagaagga 3600
 tagaggggtc tcttgtcttc agtgccagcc catggggcac cacaagatgc cactcaggag 3660
 aggtttcgcc tcaatcttgc actgaattat catctgtcaa atgcgtgaac acatcctgtg 3720
 gcttagtctg taaggctgct ataata 3745

<210> 1691

<211> 2774

<212> DNA

<213> Homo sapiens

<400> 1691

taggggtact atgttctcaa aggggcacaa gaccagtcta ctttctaaat tgccttgtca 60
 ggaaagcctg ggcaaaagtc actcttacgg agcccagaac acagaccttg attttaaag 120
 caccacaagg gactctgcca ggcctgaagt ttactgtaat gaacctccct ggacagtgca 180
 gggtcagatc ggggtgtcagc agccggggat ggctaccagg agcctcagcc tcttcctgtc 240
 tttcagcttc taaaaatcca actacgtgca aaggttccac tactcccggc ccgtgcgcag 300
 ggggaccgta gaccagaga atgagtttgc tgtgagtatc ttccctacc ttgatcattc 360
 cctggagcca cctggaggaa ccagagcatg catcggccag cctcagaatg ggaaggaact 420
 tgatagaaag ccagagaaaa taaagccaac ctccatggat accatgacgt ccgttcccca 480
 atctcttcca ttagggcctg gtctcttatt tcttgagcct tttcccctt aatacagaac 540
 ccaggcctca tgtcagaggc actttttcaa ccacagggca ttcaggcatt gccagcacgt 600
 agaaaccctc aggctaagaa ggggtgttga taaaatcaaa ccttccagca aacaccagta 660
 agaagccaca gcaatgtagt catcactgtc ccctgagtgc tagtctctc tgtgtgtgtc 720

cagctaggat tcaaacaaga ctggattaag gaggtgtctc caagtctcag ctctttggcc 780
tggacagtaa ttcttaatat ttttggagcc actgcctctt tgagagtcta atgaacactg 840
ggaacccttc cccgagaaaa caaatggaca cattcaatat tgcctaaaaa ttcagactgc 900
taataaacc aggttagtac ttacttggcc taagtccagg gagagcttac acttaatgtt 960
gggaaagaat tcttaagggt aaggtgagag cgtgtttctg ggtcttgcaa tatttattct 1020
gctttcgggt agatgggagg cccggggacc tggctgggtt tctgccaagc ttctccgata 1080
cccaggtttc ataaatgtgt ttgttgcttt cctgcccttg ccaccctct gcccacggac 1140
agtccatgtg gattgagaga acctccttcg tgactgcata caagctgccg gggatcctgc 1200
gctggtttga ggtggtgcac atgtcgcaga ccacaattag tcctctggag aatgccatag 1260
aaaccatgtc cacggccaat gaaaaatcc tgatgatgat aaaccagtac cagagtgatg 1320
agaccctccc catcaacca ctctccatgc tcctgaacgg gattgtggac cctgctgtca 1380
tgggaggctt cgccaagtat gagaaggcct tcttactga agagtatgtc agggaccacc 1440
ctgaggacca ggacaagctg acccacctca aggacctgat tgcattggcag atccccttct 1500
tgggagctgg gattaagatc catgagaaaa ggggtgtcaga taacttgca cccttccatg 1560
accggatgga ggaatgtttc aagaacctga aaatgaagggt ggagaaggag tacggtgtcc 1620
gagagatgcc tgactttgac gacaggagag tgggccgtcc caggtctatg ctgcgctcat 1680
acagacagat gtccatcatc tctctggctt ccatgaattc tgactgcagc acccccagca 1740
agcctacctc agagagcttt gacctggaat tagcatcacc caagacgccg agagtggagc 1800
aggaggaacc gatctccccg gggagcacc tgcctgaggt caagctgcgg aggtccaaga 1860
agaggacaaa gagaagcagc gtagtttttg cggatgagaa agcagctgca gagtccgacc 1920
tgaagcggct ttccaggaag catgagttca tgagtgcac caacctctcg gagcatgcgg 1980
ccatccccct caaggcgtct gtctctctc aaatgagctt tgccagccag tccatgccta 2040
ccatcccagc cctggcgctc tcagtggcag gcatccctgg gttggatgag gccaacacat 2100
ctccctgcct cagccagacc ttctccaac tctcagatgg tgacaagaag acactcacac 2160
ggaagaagggt caatcagttc ttcaagacaa tgctggccag caaatcggct gaagaaggca 2220
aacagatccc agactcgctg tccacggacc tgtgagctgc tgctgactag ggctgcatgg 2280
gagagccagg gaggggagtt tctggaagag gaaagccatg cgtggaacat cgaagcctca 2340
gagagtggga gactgtcccc atcagttgtc cttacttaga ggagacagag aggccaatca 2400
ggtccctgag cttgaatgct aacaagccca gcatccctg gggctgtgat catggtggat 2460

gaggaagcct caacgtagat tcctgaactc aaggtaccag caagaatgcc ttctcccagt 2520
gtgctctccc caacatccta ggcacagctt tcataacca gtttcttagg tgtaagaaac 2580
tgtttttata tcatttatta agtctcagaa cttaacagaa aaggaagcct tttaaattatt 2640
ctttttaatt ttattttaga ttaacagttt tgtactttac atttttttat acaaccaacc 2700
agtttctttt ctagccaatc atctctgaag agttgctgtt tcttactgac aataaaaaat 2760
gttctcttgg ttcg 2774

<210> 1692

<211> 3754

<212> DNA

<213> Homo sapiens

<400> 1692

ttttggtgga gatggggttg tgctatgttg ccaaagatgg tctccgactc ctgggctggg 60
tggctcctccc acctcagcct tccgaagtgc tgggattata gacgtgaccg tgcctagcca 120
tgtagtctt cagtacacct tctcttttgc gacagccccg cgctcccatg ctctgcccag 180
cctctccagc cgttccttcc tggctctctgg ctggctctgc ctctcagct cagtgcccg 240
atatgttttt ccccagggtc cagccttagg cattctccac agcctacgt cactccttgg 300
gcgacctcat tcagtccttg gctttaagac cccatcatga cgcagacccc cagctcccgc 360
tccagcacag tgcttaccag agctccagac tcacttccca ctgccccctt cctgggcagc 420
cctacctgga tgtctacagg caccgcgagt tcagcagtgg ccagaatgct tgacgtcctc 480
ccgcagacat gctattccca tctccccatc tcagtgaata gcaccacatt cactcaggtg 540
aaaagcctgg gagaaagcct ggattccttt caccacttc atttccaacc caccaccaag 600
tcctgctggc tctactgttc ctgcctcaat ccaccgcgtt tggctctctat tgctcccctg 660
aatccagatc atcatggcca acctctctac cctccagcc gccatgaagc caggagtctt 720
ttagaagtct atgattccca tcaccgcggg gctggacagc tctcttgggg accttcctg 780
tgcacctgtg accgtgtctg cccctcataa caccctagtc acaatgcctt ttcagttccc 840
caaaaaagct agactgggtc cacttctggg cctctgcctg gagtattcac agaccctcag 900

tcgggccccca gcttggatga gtgtcagcag aggccctccc cactccacct ggattaaagc 960
aggctctgcct ggcgccctgc accacacacc ctccctccc tcagcgtgtc tggcccgacc 1020
agcacgcagc ttccatgatg gcagggcctg gcctctcctg cacgccatgc aggcctggcc 1080
cttgccaacc actggacctt agtaaataatt tgaggagcaa aagaatgaaa cgctaggtgg 1140
gtgcatgagt ggtggcagag tctggttctg aggtttctga gcttaaggcc gtgcagcagc 1200
tggctctgct cccttgagat tctggtgccc actcccttgc caggtttcag gcacccgtgg 1260
atgagcagtc agagagtcta cagaacacgc acgacgacag caggaacagc gcggcctcag 1320
ccaggtaaag caagtctctc cactggagag tgtgcacgcg atgtggcttc tgaggccaac 1380
aggacgacaa aggaaactcc aggcctttcc cctttggcgc cagctctggg gccctggctg 1440
ggcctctttg taaaacaagg ggtcagagag gctctcagcc cagatgagta acttataagt 1500
gacctcatag ataaaacagg tggtcctttg atagacagaa cccatttta ccattataaa 1560
cagccatggc tgctgcctgc atccactttc accactggga gctgcacgtg cttatgctag 1620
gggactcggg tcaactgaaat gagaaagtga ccgaggactg ttccccagag ccagcgcagt 1680
cgccccagta cctgccagag gaagacggct gtgcattaac acctacgaca cagtcacagg 1740
ctgatctttg tgtattttgc tttcaggaaa acatagtcac agggcagagg acagcactgt 1800
agaatgagaa ccagaagagc ctaggggtgt gcagagggtt gctgaagtgg ccagagtcac 1860
agcgcggctg gtgacagagc agagtctggc ccagcctcc cctgcacagc cgccatttat 1920
tagctcagat gcttccaaat tcaaaatgca gtgtcaccag aaaccgctga cacaggctga 1980
tggttcagca actcacagcc atcccctggg gatgggctcc tactcagaag tagacaaggt 2040
ccttttgag acagagcctt cctggttctc actcactgag gccttccagg aagacgttcc 2100
attctgagt ctttggccca agtggatttt agtgcaggga tatggtgaaa tgggggagcg 2160
ggctgggctt acatgaggct gtcccttttag gaataatcca ggaagtgtcc cggaagagag 2220
agagaagaca tcagagccta aaggaaacag ctgggctccg aacggcctct cagaagagcc 2280
tctactgaaa aatatggatc atcacagatc caagcagaaa aatggggggcg atgtccccac 2340
atggagggaa caccgcactt agcaaattgg accggtcccc agggtcaggc tcttagagca 2400
ggcacaagac tgggacactg gacagaaggt tgttcccatg atggtttttt ttatttttta 2460
tttttgagat ggagtttcgc tctgttgccc aggcctggagt gtaatggtgc gatctcggct 2520
cactgcaacc tctgcctcct gggttcaagc gattctcctg cctcagcctc ccgagtagct 2580
gggattacag gcgctgaca ccacgccccg ctaatttttt gtatttttag tagagatggg 2640

gtttcaccat gttggccagg ctggtctcaa actccagacc tcaggatgat cacctgcctc 2700
 agcctcccaa agtgctgaga ttacaggggt gagtcaccgc gcctggccaa tgttggtgtt 2760
 gtttttaaga cagaatttca ctctttgttg cccaggctgg agtgcaatgg cgcaatctct 2820
 ggctcaccgc aacctccgcc tcccaggttc aagcgattct cctacctcag cccccagagt 2880
 agctgggatt acaggcatgt accatcacac ccggctaatt ttttgtattt taagtagaga 2940
 ggggggtttct ccatgttggt caggctggcc tgaactccc aacctcagg gatccgccca 3000
 cctcggcctc caaaaatgct gggattacag gggtaagcca ctgtgcccgg ccggttattt 3060
 ctttaaaagg taatcatttg tcaagagtaa aaccagaag ctctgacagg ccataatttc 3120
 agatcctttg gcttgggcag ttttgatttt ccccggtgtt gcatggcatg aagtcttcgt 3180
 ccttgtcaca gtagcttggg atgactccca gtccacatgg aaaacatcag ggagtgacaa 3240
 tccagcaaga aatccctcgc tagttccaca cctacgcacc gagcgtcggg gtgccaggcc 3300
 ctgtgctggg cagagtgtgg tatgtcaggg tgtgccggtt ttaggtaaca agactccacc 3360
 actgagtggc acctgcccta ttgcaaagga atccagttcc tccggaataa cagtcccact 3420
 gttaacctgg tgctactggg aagtccaca cagtaatctg agcagtgact catggaagga 3480
 tgaggaacgt ttgctccagc ttctctccct ttccagcaag ggcagagctc ctaaagccag 3540
 gggtagcac ctggccagct tatgtggcag atggtctcag ttacaacttc gctgctttcc 3600
 caaactcctg cagccctcct gagtccgact tccgttgata gcaaggcact gggtaggcagc 3660
 aacctttttt ctagtagttt tttccagca gttttccatt tctccacagt atccttttca 3720
 tttagaggag cttaataaat gctttttaaa aagt 3754

<210> 1693

<211> 2819

<212> DNA

<213> Homo sapiens

<400> 1693

atgcatgcat ccatccatcc atccatccat gcatccatcc atccattgat ccatacatca 60
 atccatgcat ccatttatcc attcatgcat ccatccatcc acccatgcat ccatccaccc 120

atccatccat ccacgcatgc atccatttat ccatccatgc atccatccat ccacccatgc 180
atccatccac ccatccatgc acacatccat ttatccatcc atgcatccat ccatccaccc 240
atgtatccat ccacccatcc atccatccat gcatccatgc atccatccat ccatccatcc 300
atccatccgt ccatccatcc atgtatccat ttatccattc atacatacat ccattcatcc 360
atccgtggat ccatgcatca tccattcgtc tttgcatgaa tgcattgcatg catccatcca 420
tccatccatt catctgttca tccatccate catccatgca tccacccatc tatccattca 480
tttatccatc catgcatcca cttattcatc catgcatcca tgcttccatt tatccatcca 540
tgcatccctc catccatcca ttcatccatg catccatcca tgcatacata catccatgca 600
tccatcaatc catccatgca tgcattccatc catccatcta tccgtccatc catgcatcca 660
ttcattcatc catgtatcca tgcattccatc catccatcca tccatccatc tatgcacgca 720
tgcattccatc catccattca tccttccatc catccacgta tccatgcatc catccattca 780
tctatgcatg catgcatcca tccatccatc catctatgca tgcattgcatg catccatcca 840
tccatccata catgcatgca ttcatccatc catccgtgaa tgcattccatc catccatgta 900
tccatttatc catctgtgca accatccatc catccatgta tccatttatc catctgtgca 960
accatccatc catccatttg ttcatccatc catgcatcca tccatccatc catccatcca 1020
tccatgtatc catttatcca accatgcatc tatccatcca tccatgcatt catccatcca 1080
tccctccatg catccacca tccatccatg aatccatcca tcatccatcc atccatccat 1140
ccatccgtcc atccatgcat gcatctattc atccatccat ccatctactc aataaaagtg 1200
tgaggtccta gtcttcctgg cactgctcca gacacaggta acacatgggtg aacaagatgg 1260
gtgagaaccc acacgtgtgc aattttacctt ccagttggga gaagacggca taaaaaaca 1320
tataaagaaa cgatgaagtg gaagcattgg tgctgtgaag agaaattaaa caggatgaag 1380
ggatagtga tggtagaggg cggggctact ttaggtagag gggtcaggga ggcttctctg 1440
aggagaagag acttgaaggg aagagggagg ggctgtgcgg ttggctgggt cgcagctaca 1500
ggcattgaaa cagcaagttc caaggctgga atggagactg taccaaaaaa agggggggcg 1560
tcaaggagtc ctgagtgggt gagcagagtg agtcagaggg aagtgtgaagg agatgaggca 1620
ggagaagggt cccactgtct cctgtcaagc cttgttgtgt cgggacttga actttattct 1680
aagcaggtag atgcggtgca tgcaagagag acagagagaa tgtggcagga ccaaggagga 1740
ggctatgcca cttatgtcac tcctggcaaa aataaggggg catggagtag gctgtttgtg 1800
gtgcagatgg tgagagcagt caggtccagc acagatttta aaggttggac ccagagaatt 1860

tgctgcagaa tcagatgtgg ggtgtaaggc agagaggagt caagggcaac ttcaggattt 1920
 ggggccggaa ctgccattag acagacaggg acactggggg agaagcaggt taggtgggat 1980
 taaaatcaag agttcaagtt aagtttgagc agcctgttag acctccaacg agggccagat 2040
 agaagaatct ggtttccagg gagaggtcag gatgagagat acacacgtgg gaatgattgg 2100
 cattgggcgg actttatatt ctctgggcca gtgagacagc tgggaagtga ccacggatag 2160
 agaagagaca aagtcacaga aaccaagaga ggtaatgttg caaggacgga acactcaact 2220
 ctcaaagtct gctgagacgt gggctgaggg ctgagaatgg aattgggaag aaccgaggtc 2280
 actgggtgatc ctgagggttt cagtggcaag ggcaggtgga ctgcagtggg gcccggtggg 2340
 gatgggtgga gcatgggccc ctctcccga gagttgcact gtaaacgagg gcagacatat 2400
 gggagtgcag ctagaggag ggaacgtagg gtcaaggag agtttattct gaatgagaga 2460
 gatcacagct tgtttttagg ctgacgggca tgatccatag aggggaaagt aattaagatg 2520
 cagaagagag gccgggggtg gtggctcacg cctgtaatct cagcactttg ggaggctgag 2580
 gtgggtggat catttgagga caggagtctg agaccatcct ggccagcatg gtgaaacctc 2640
 gccttacta aaaataaaaa taaaaaaaaa ttagctgggt gcggtgacgg gcacctgtag 2700
 taccagctac ttgggaggct gaggtaacag aatcgcttga accctggagg caggggttgc 2760
 agtgagctga gattgtgcca ctgcactcta gcctgggcaa caaattgaga ctccatctc 2819

<210> 1694

<211> 3481

<212> DNA

<213> Homo sapiens

<400> 1694

ttgtattgtt taatagtata atttaaaaaa aagaacttag aagtcaaac aactgataat 60
 atcaaactgt ccaaagctag gagcttacct ggaatgcact tagcttttac ttcagcttgg 120
 aaattctgtg agtccagcgt tctttctttt ctactatacc acggtgctat tgttttatatt 180
 atattttgct gaagaaaatg tactttatatt ttgaagtatt cctttttttt tattttatgt 240
 ttttagagac agggctctccc tatgttgccc aggatgggtct tgaactcctg ccctctagca 300

gtcctccccg ctcagcctcc caaagctctg ggattacagg caggagccac cacacccagc 360
ctgtactttt atatcaacat taggaatacc cccagagaag gaaaaaccac atttggcttc 420
tacatccagt attgtttgga aataaataac atgtttgttt gtcattcatt actgtccaaa 480
aagaaagaaa agaaaaacaa aacaagactt aaaatggatc ttgattgccg gttcacaaat 540
ttaaaactga cactagtctt ctgagaatta cacttctcat aagcaaacag acctacttaa 600
ttctaagttg tctttattaa attgatcaga ggggaagcac atctttcctt tccccgtctt 660
acgttacaca aaggtcaggc ataggttgta aagattttca taaaacctgc aaaatgaaga 720
atatccttta ctgaaatgga acatcacagg tccctagaat ggaatgggtt ttgttagtat 780
agctgtcaca agtgtgtgcc tcttgttaca ttaatgctat ccctgctttt gttagtcca 840
tataaatgat tgatttggct tgaatggaga taaaagtcta ggtctacaac caatcctaga 900
acttcaagtt aactttaagt ttggtgttgt atatggacag gctgttacac taccatttt 960
actgtgcata ttaaacgtta ctgttactta tttttagtgg ctagatgatt gtaagaggac 1020
atttggtgcc aaagaagaca tgtataggat aaacacagat gcacaagaat tggagctctg 1080
ccgaagatta tacaaattgc attttcaatt gctgcttctg ttccaggcct actgtaaact 1140
tatcaaccaa gtaaatacga taaaaaatga agcagaggtc atcaacatgt cagaggaact 1200
tgcccaactg gaaagtatcc tcaaagaagc tgagtccgct tccgaaaacg aagaaattga 1260
catttccaaa gctgcacaaa ctactataga aactgccatt cattctttaa ttgaaacttt 1320
gaaaaataaa gaatttatat cagctgcagc acaagtcaaa gctttcagat ctctctggcc 1380
cagtgatatc tttggcagtt gtgaagatga ccctgtacag acactgttac atatatat 1440
ccatcatcag acgctgggcc agacaggaag ctttgcagtt ataggctcta acctggacat 1500
gtcagaagcc aactacaaac tgatggaact taatctggaa ataagagagt ctctacgcat 1560
ggtgcaatca taccaacttc tagcacaggc caaaccaatg ggaaatatgg tgagcactgg 1620
attctgagac acttcaggcc tttaggaaag aaactaaact gaagatgatg aagaatatta 1680
accaagcacc ttttatggac ccttgcatte actgataact ttctggcagc atctactttt 1740
tagtgtaact aatgtcaaac tgtatcatca aaaacaaaga tctgaaagaa aaaaacatct 1800
gatattttta cagctgccaa tatctcccac aataactgcg tgaagaagga atttttta 1860
tacttaacct acgtgaaaag aaaagggcta aaagtgatgc ctacaaatac attactttct 1920
ggggaaagaa aagaattcca agaatgtttg caataatggc ctccaatact gaaacaacca 1980
aaagcaggtg aatgaggct gaaatcaagg ctgtttcatt ttagctgaag acctgcaaag 2040

ctgcttggat ttctagcagt tgaaaaccta acctgcaatt gatgcttaat catccatcca 2100
catgaacatg cagtcagcta tacgcatcaa gactcgtttg caaaaacat tgatttttca 2160
gtatgtggga taagggtttg ggtttttttg ttttttggtc tgtataagga attatgtgtg 2220
tgtgagtgg gatgtatgga tatgtgatag tcatattttc aaggtatgga tgtttggtga 2280
taacgtctca gagcatgcct aaaagagcac tgcaagatta tttttgaaga aatgttattt 2340
tattagatct aactcttcat agtatgtaaa tgttagaaca ttttaataat attttaaaac 2400
tgggctttcc cagtatttca aaaagaaata atatatctgt taacgttatt ggaatgctgc 2460
tcagttctct gatcagtgcct tatgttatga ttgttgataa ctaaccaaag tagatgcctg 2520
cagagacttt aaaatgtaaa ataaagatgt atgctgcctg tcagctattc tcattagaaa 2580
agttttaact tattttactc catatagaaa ctgtagagac taaaaccagt tattttcttg 2640
tacatttgtg ccatgcactg ttgttataca agaatagggtg tacaaagcta aagaaaaatt 2700
gtggtcattg atgatggaat atatgacttg caggctttga agtctgcaga attcaagaaa 2760
agagctgcaa atgcattttt gtatctttat tcaggactca catgctttac cctaaagaaa 2820
cctggggcta ggggaaatga aaggaagcct gaagactgac taccaaaaca tgcaatatac 2880
ttattcactg tctaagtctg tagtataaca tgaactggag tctctatcct tttctaaaat 2940
cgcattttgt aagaaaagaa agaaaaaaaa aaaaaagaat gtagtccac aactcctgat 3000
ttgaaagaaa caccttgtat tttttatata catctcttat ccactgtgac ttttctttta 3060
aactgggctc tgtgattcca gagtttagaa tgtagaaatg aaacgcttag ctttaccttt 3120
tcttgggggg tgtggaccct gccagaaatg taattacgta tgctcaagtg cattaattga 3180
aggcactgtg cacaccattg gactgctgac cacagttaaa catttccagt aaaatttcgt 3240
aactggtcac agtcattca taatcactgt attttttgac cctgataaag acaattattt 3300
tgatggtgtt ctggtactgt aattggtatc ctttaaatta tttaaaactt ttgggtgtgg 3360
ggcaggcaga gagggatggg gtccagagat acatcacact ttacatccta tcttactgtc 3420
ctctgttttt cttaccctcc ttacatcctt tttgttaaaa ataaaaagca ttgtagctgt 3480
t 3481

<210> 1695

<211> 2775

<212> DNA

<213> Homo sapiens

<400> 1695

ggggccca	tgtccccag	ctgtgatgct	gcccctggct	gctgcgtggg	ccgggagcag	60
cacttggggg	ggagacgcag	gcccagagca	gcagtggtag	gaacgggtgc	cctgaggggca	120
gtgccggggg	tcccttgaaa	cactctgtcc	tttctctctc	ccatgggtgcc	aagaggcgcc	180
tcccgggagg	accctgagat	catgaggcca	ccgtacctgt	tggagcgccg	ccgcttgctc	240
ttcttcacgc	acttgaggag	gcagcaggtg	aggaaggcca	tggacatgag	caggatgatg	300
gcacagctca	caatggaggc	gacacggcc	accttgaagc	caaaggcttc	gtgtggtggc	360
accactgtgt	gggagacaac	caccagctcc	tgggcgaggt	ttgcccagat	ttgcttggcc	420
caggggttgg	gggtctcagg	ggtggtacgg	gtagggcctg	ggtgtagaca	gggcctgggc	480
agccctcagt	gagccctgtt	tgcatggtaa	gggggcagtg	aggtgctggg	ggctgaggca	540
aagatctgtg	caactatat	ttggaggtgg	gactatcaga	gaagactctc	cccaagaagc	600
aggttatttg	agcagggtgt	gtaggagtat	gcagagtggc	tatttaaagg	gggtatttaa	660
gcagggtttt	ccagggtgtg	taggagtgtg	cagagtggct	aactgaagag	ggtatttgag	720
cagggttttg	tagggtatgt	agaagtctgc	agagtgggtca	attacagaag	ttctggcagg	780
gagttcagag	tgatggcctc	cttggctcct	accactgaa	gtcctgcctg	aggaatgaag	840
gaagggtggg	ccacagagag	gaggtgacaa	tagacagtac	tgaggaggcc	ttgcccagcc	900
catggtctgg	gttttcacaa	tgccccaagg	tggcaacatt	cttcaggggg	cctacatgcc	960
ttctcaggtc	actttccagg	aagggtccaa	atactatgta	tctgctgtgt	gacctcagct	1020
atgctccaaa	aactagtcc	atcagattct	actggatggt	ctggctaaaa	aaggcctcgg	1080
aatcctaatt	tgagcaacac	cgtttactcc	cccacgtaga	gaacatggcc	ctgtcccctg	1140
ccccatttcc	catgctccct	agtggatcct	ggccacccaa	aatggagact	acattttcca	1200
gtggtcacag	gaccatgttc	tggccagtgg	aagataagaa	gtgatgtggg	gcaacttcta	1260
agaaccttcc	ctgagacact	ggggcctgct	ctttggcccc	agggcccctc	accccataac	1320
agctgcctgg	aacatagctg	ctgccatctt	gaatcatgag	gctgaggcca	tgcccagcag	1380
agccatgcc	gggaaggggc	ctggctccca	ctgccaatgga	gcctatacag	atctgcctgc	1440
ccaccctgaa	ggttgagctc	catcatagtt	aatcctagta	ttttgggttt	tctgcctttc	1500

agaatctaata cctaacactc gcatacctcag agaatacacct agcacgtgaa catttttaaag 1560
gctctgagaa gttctgcagc ataaaaaccc agaatactgcc aaactatittt gactctgagc 1620
cctttttatg cacaaaaacac acgaacataa cacacatagc ttcatitttgg aaatgtcatg 1680
ctgggcactg aaaagggact atcttgtgga cctttcaaca cctgtacaag aaatacaacc 1740
agaaaaccat tgcctccac agactgggag ctccagggcc aggcacgtta tgaccttccg 1800
tgttgccagt acttaagatt cctgatacgt gaaatatacct attaaagttg gccatgtgca 1860
cctgtacatg aatgaatgaa tgaatgaatg aatgaatgaa caaacatagt ttcttgctta 1920
acagatgaaa acgtgctggc tcagagagca tgcacagcct cttggcggtg aggggctgag 1980
tcggtagcag agccaggatt ggaggccgc tactaggttt tcggtccgtg ctgccaacat 2040
ggcactggga gggctgaggg cctacagccg gctgctgaca tgtaagcaag ctgtcagtgt 2100
tgggaatggg accctacaca ctggcctagc tgcttgtgag tagacacca cgccatcccc 2160
acccacacca tccccatgac aggatttggg gccatcccc accccagag ccaccgagct 2220
gagagagggg tccttacgtt tgcacactgg ggaccctgaa gaccactcag cgatgctccc 2280
cttccagggtg caggtgagga gccagaccc caccatctgg tggttggagg ggcagcgga 2340
catgagcacg gtccccacgg aagcaccatt gccacgaagg acttgaagg ttgcttgagg 2400
gggtagccgc agcttagcgc acgtgcctgg ggagacaggc aggtatgagg catggcgggg 2460
gggggggggt gggcacgcag ggcagggtg ggcaggacc tggagtgagg agctggcaca 2520
gcattgggga gcacagggt ggggtgcagc tccaaaggcc attggatgct ctagaggtca 2580
catggggtca tccagaccgg gggacaacgc agagctggat ccctccatga agtacactct 2640
agatgttgag gattggagca ttaaaaaaag aaataagtgt tagaagaca taaaagcaaa 2700
cataccttcc ctgagacact gaggcattggc ctttgattat gacctaaaca cggctccaaa 2760
ggcagaaatc agaac 2775

<210> 1696

<211> 3688

<212> DNA

<213> Homo sapiens

<400> 1696

acctgcaccg ggccaggcaa gatggcggcc atggagaccg agacggcgcc gctgacccta	60
gagtcgctgc ccaccgatcc cctgctcctc atcttatacct ttttggacta tcgggatcta	120
atcaatcgaa gacttagcca gctatcaagt catgatccgc tgtggagaag acattgcaaa	180
aaatactggc tgatatctga ggaagagaaa acacagaaga atcagtgttg gaaatctctc	240
ttcatagata cttactctga tgtaggaaga tacattgacc attatgctgc tattaanaag	300
gcctgggatg atctcaagaa atatttggag cccagggtgc ctcggatggg tttatctctg	360
aaagaggggtg ctcgagagga agacctcgat gctgtggaag cgcagattgg ctgcaagctt	420
cctgacgatt atcgatgttc ataccgaatt cacaatggac agaagttagt ggttcctggg	480
ttattgggaa gcatggcact gtctaatacac tatcgttctg aagatttggt agacgtcgat	540
acagctgccg gaggattcca gcagagacag ggactgaaat actgtctccc tttactttt	600
tgcatacata ctggtttgag tcagtacata gcagtggaag ctgcagaggg ccgaaacaaa	660
aatgaagttt tctaccaatg tccagaccaa atggctcgaa atccagctgc tattgacatg	720
tttattatag gtgctacttt tactgactgg ttacctctt atgtcaaaaa tgttgtatca	780
gggtggcttcc ccatcatcag agaccaaatt ttcagatatg ttcacgatcc agaattgtga	840
gcaacaactg gggatattac tgtgtcagtt tccacatcgt ttctgccaga acttagctct	900
gtacatccac cccactatth cttcacatac cgaatcagga ttgaaatgtc aaaagatgca	960
cttcctgaga aggcctgtca gttggacagt cgctattgga gaataacaaa tgctaagggt	1020
gacgtggaag aagttcaagg acctggagta gttggtgaat ttccaatcat cagcccaggt	1080
cgggtatatg aatacacaag ctgtaccaca ttctctacaa catcaggata catggaagga	1140
tattatacct tccattttct ttactttaaa gacaagatct ttaatgttgc cattccccga	1200
ttccatatgg catgtccaac attcagggtg tctatagccc gattggtaag ttaaattht	1260
ctctagtgtg gatttacatg actthttagg gttaacactg cagataagcc aggcaaatag	1320
ttagtttata aatagtgttc cagagaaccc tagagattth gagaaagtat cttgggggtc	1380
atgtgaattt gttgagagaa atggacaagt aaatgaggct ccatagtctc taaccagaga	1440
atthtctgtg thttaaagat tcaacttggt thtactgtt cagtggccta aatgtagatt	1500
atgagaaata ccacattaga ccagtagaat cagctthtaag actgggaaaa caacttht	1560
cagtgttht gctcaactt ccaatttaat gtcaataaaa caaatattcc ataaagatca	1620
ttataaagaa aatttaatgt gtggatgtgt actthtggca gtctctctgg gatcatttht	1680

taagtcaact gggatatattt tttaaaatct cgttttttagg gttaccttat gacaagtgt 1740
acagtaactc caaccttaga gactataaca tgattaaaga aagttatgaa gctccagtta 1800
tacaatgggg ataaaatatg aattatatac ccagaatgca attgagttgt aggtgttgaa 1860
tctttggaaa atgccctcta gcttctggaa tgaccctgat ggatgggttt aagtttggaa 1920
agatggacat gatattaatc tgatccagag ctgacacatt ttcaactcca gtttgaaaag 1980
agaaggatga taatgagact ttgggccatt acctgtgtgg cataatctagt gaaaagaatc 2040
tacagtgtgc gtttggaagt gaagatttag atttcttccc agtggaggaa tgccagaaac 2100
tgtatttcca gtactgggaa tttgctgctt tgcataacag aattcctttt ttgactggcc 2160
cagtatctgt atgagtttgg aataatcttt tccctaaatg tttgatatga ttcactctg 2220
aagttatctg gggctagagt tctgtttgtg ggaaaatttt gaaatttgaa ttaattttct 2280
ttaatattca tattttctat ttcttcttgt ttcagttttg gtaatttggt ctttcaagg 2340
aatttgcca ttccatctaa atgttgaatt tattggtata aagttattga cagtattccc 2400
ttgatatcct ttaatggct acaaaagcca tagtcacttg tcctcttttg ttcttaatat 2460
tgttaattta tatcttctct tttgttcatt gcttttagtta ggggtttgta atttttattg 2520
atcatttaaa ggagcaactt ttggttttac taattttctc tatttgctta ttttctatcg 2580
cattgatttc tgcagttatc tttatttctt tccttctact ttgagtttgc ttttcttcta 2640
gcttttttaa ggtagaagt tatattagta attttagaac ttttctctct ccaagcactg 2700
ttttagctgc atttcacaag ttttgatgtg ttttcatgaa cgcgtagttc aaaatagtgt 2760
cagatttccc ttgtaattta attttgatct atgacttttc tagaaatgtg ttaattttca 2820
aacatttggg ggagttttca gttatctttt ggctatcgat tttttaaatt tattgtgggt 2880
agagaatttg ctctgtattt tcaatcctaa atgttttatg gcccaaaatt atggtttatc 2940
ttggtaaag atccttgat atttgaaaat aatgtacatt ctgctatttt ggggaatatt 3000
actctataaa tgataggtca aatcggttga cagttttttt caagtcttct gtatacttgc 3060
tgattttttt ttttttgggt ctttgtccta tcaacaagtg agagatgatt gttgaaatct 3120
ccaaatataa ttatagtttt ttgtttctct ttttagttct gtcaggtttg cttcatgtat 3180
tttgaagctg tataattata tgcaaataatg ctaaggatta ttatgtattt ttaatgacat 3240
aattctttca tcattatgaa atctccatct ttatcgctga taatattcct cgtcctaaag 3300
ttcaaagagc attgaggtgt gttttggcag gcagttgagt tactattggg tcgacttgat 3360
cctttggaat cttgtttgtt tttaatgttt gttagggtgg gtgtaaagt gtctttattt 3420

aaggatggtg gttgtcaact ttcagtctca tgacccccctg aaactctaaa aacttattga 3480
ggactccgaa gaattcttgc ttatgtggat tgtattaatg cttaccatat cagaaattaa 3540
aactgagaaa taagtaaaac aatatttact tattagttcc ttttcaaag acaataataa 3600
accattttca tgttcagctc tctcttaact atgttctttc ttattagttt tcgttttcctt 3660
ctaaccacaa ataaacatat aaaatctt 3688

<210> 1697

<211> 3130

<212> DNA

<213> Homo sapiens

<400> 1697

agcgcggcgg tgtgatgatg actccaagga gcccggcgcc cggctgctggc ctggtttgag 60
gaagggtgaag agaccatcac tgcctttgtt gaaccctttg tcatcctctt gatcctcatt 120
gccaatgcca tcgtgggggt ttggcaggag cggaacgcag agaacgccat cgaggccctg 180
aaggagtatg agccagagat ggggaaggctc taccgggctg accgcaagtc agtgcaaagg 240
atcaaggctc gggacatcgt ccctggggac atcgtggagg tggctgtggg ggacaaagtc 300
cctgcagaca tccgaatcct cgccatcaaa tccaccacgc tgcgggttga ccagtccatc 360
ctgacaggcg agtctgtatc tgatcatcaa cacacggagc ccgttcctga cccccgagct 420
gtcaaccagg acaagaagaa catgcttttc tcgggcacca acattgcagc cggcaaggcc 480
ttgggcatcg tggccaccac cgggtgtgggc accgagattg ggaagatccg agaccaaag 540
gctgccacag aacaggacaa gaccccttg cagcagaagc tggatgagtt tggggagcag 600
ctctccaagg tcatctccct catctgtgtg gctgtctggc ttatcaacat tggccacttc 660
aacgaccccg tccatggggg ctcttggttc cgcggggcca tctactactt taagattgcc 720
gtggccttgg ctgtggctgc catccccgaa ggtcttctg cagtcacac cacctgcctg 780
gccctgggta cccgtcggat ggcaaagaag aatgccattg taagaagctt gccctccgta 840
gagaccctgg gctgcacctc tgatcatctgt tccgacaaga caggcacct caccaccaac 900
cagatgtctg tctgcaagat gtttatcatt gacaagggtg atggggacat ctgcctcctg 960

aatgagttct ccatcaccgg ctccacttac gctccagagg gagaggctctt gaagaatgat 1020
aagccagtcc ggccagggca gtatgacggg ctggtggagc tggccaccat ctgtgccctc 1080
tgcaatgact cctccttga cttcaacgag gccaaagggtg tctatgagaa ggtcggcgag 1140
gccaccgaga cagcactcac caccctgggtg gagaagatga atgtgttcaa cacggatgtg 1200
agaagcctct cgaagggtga gagagccaac gcctgcaact cggatgatccg ccagctaata 1260
aagaaggaat tcaccctgga gttctccga gacagaaagt ccatgtctgt ctattgctcc 1320
ccagccaaat ctccccgggc tgctgtgggc aacaagatgt ttgtcaagggtg tgcccctgag 1380
ggcgtcatcg accgtgttaa ctatgtgcga gttggcacca cccgggtgcc actgacgggg 1440
ccggtgaagg aaaagatcat ggcggtgatc aaggagtggg gcaactggccg ggacaccctg 1500
cgctgcttgg ccctggccac ccgggacacc cccccgaagc gagaggaaat ggtcctggat 1560
gactctgcca ggttcctgga gtatgagacg gacctgacat tcgtgggtgt agtgggcatg 1620
ctggaccctc cgcgcaagga ggtcacgggc tccatccagc tgtgccgtga cgccgggatc 1680
cgggtgatca tgatcactgg ggacaacaag ggcacagcca ttgccatctg ccggcgaatt 1740
ggcatctttg gggagaacga ggaggtggcc gatcgcgcct acacgggccc agagttcgac 1800
gacctgcccc tggctgaaca gcgggaagcc tgccgacgtg cctgctgctt cgcccgtgtg 1860
gagccctcgc acaagtccaa gattgtggag tacctgcagt cctacgatga gatcacagcc 1920
atgacaggtg atggcgtcaa tgacgcccct gccctgaaga aggctgagat tggcattgcc 1980
atgggatctg gcaactgccg ggccaagact gcctctgaga tgggtgctggc tgacgacaac 2040
ttctccacca tcgtagctgc tgtggaggag ggccgcgcca tctacaacaa catgaagcag 2100
ttcatccgct acctcatttc ctccaacgtg ggcgaggtgg tctgtatctt cctgaccgct 2160
gccctggggc tgcttgaggc cctgatcccg gtgcagctgc tatgggtgaa cttggtgacc 2220
gacgggctcc cagccacagc cctgggcttc aaccaccag acctggacat catggaccgc 2280
cccccccgga gcccgaagga gccctcctc agtggctggc tcttcttccg ctacatggca 2340
atcgggggct atgtgggtgc agccaccgtg ggagcagctg cctgggtggtt cctgtacgct 2400
gaggatgggc ctcatgtcaa ctacagccag ctgactcact tcatgcagtg caccgaggac 2460
aacaccact ttgagggtcat agactgtgag gtcttcgagg ccccgagcc catgaccatg 2520
gccctgtccg tgctggtgac catcgagatg tgcaatgcac tgaacagcct gtccgagaac 2580
cagtccctgc tgcggatgcc accctgggtg aacatctggc tgctgggctc catctgcctc 2640
tccatgtccc tgcaattcct catcctctat gttgaccccc tgccgatgat cttcaagctc 2700

cgggccctgg acctcaccca gtggctcatg gtcctcaaga tctcactgcc agtcattggg 2760
ctcgacgaaa tcctcaagtt cgttgctcgg aactacctag agggataact gttccccctc 2820
ctccatctct gagcccggtg cacagatcca gaagatgaaa gaaggaagtg agcatccttt 2880
tgctctgtcc tccccacccc gatagtgaca catcttcagg cagagctgtg gcacagaccc 2940
ccgtcctgtc cccacacccc gtgtcatgtg tctgtttata aacatgtccc cttccctttc 3000
cttccccctc ggccaccgcg ctccctctca accttgtaaa ttccccttcc caaccccag 3060
gggcttgcag ggacaaggcg accgactgcg ctgagctgct tatttattga aaataaacga 3120
cggaagtc 3130

<210> 1698

<211> 2934

<212> DNA

<213> Homo sapiens

<400> 1698

gttactggaa atgaggagag cctcccaggt cccagcagag ctgctgctgg tgcctccac 60
tgtgggctcc acagaggcag aggatgaggg agccactgat acctccctgt aaggcagcct 120
ccctgagcga gcaggagcag gtcaggggtg agtgtggaat gatgacagcc cagggcatcc 180
taggcccccg gggcaagagc aagctccctg tgcttcctga ccccgccctc atttgcagat 240
acatgtgtc atgtcgggag atacctggag tcctctcaac tcctgtcccc cattccgcag 300
gtccacaagt caccaggttc cattccccct cccctccaca tatctcagag ctgtcacaga 360
ctctccatgc cccatttcag gggctttggc ccaggccttg tcatgcctta tctggaccaa 420
gagcaatggt cccaaccag ctccaccag gtaccccttg ccccgcccat gtccccaca 480
gttgaccat gcctgctggc acctgccctc tcttactgg tgctccagca gctgcagagg 540
cagggctgaa ccctgggccc gctctcaggg cccccacctc ctgctcatcc tccacatggc 600
ccaagccctt catgactgtt tgctcttgc ccacatctc catgttgacg tcgcctggga 660
ctggaggatg catcagagca cggatccttg agccagctta aaaacggtgt gtgaggccgg 720
gcacggtggc tcacgcctgt aatcccagca ctttgggagg ccgagggtct acaggagtta 780

gtgcatgcag tgtgcttagg acagggcctg ctggaggaat gtttactact attattaatg 840
actggtaccc ggggctagtg atccagcatt tectgcctag cgccttgtcc attccatgag 900
aaccggccct cctcagcctc accagggaca tegacatgtc tgacccctg cagcctgcag 960
ggggaggaca cggagaccct gagcaggcag cgacttctgg agttcaacag cccctaggg 1020
cagacctgtg gatgcaaagc cgggctccag gtacgcagtg cccttggggg ccgccaggtg 1080
ctggcagcag ggccacgggg acctgggact gagccctctc tgcctccagg aaaaagcaaa 1140
atgggatcat ggtcccaggc gtccattcga ggctctctcc ccttggcagg agacgaagga 1200
cactgacccc agcactcagc atgggctggc aaacctaatc agtgcccatg gattatgttt 1260
gccatccact gactggtgga cggattgagg accttggagt tatcttcctg aatcttcctt 1320
ccttgatggc aactcacctc cgctcaccaa ggggtccagg aaggcacctg actctcagga 1380
ccgctggcgt cttggccagc ctgggagaga aattcatctg gcttatggca cagggacaga 1440
agcaggccgg ctgaggacaa ggtaacagaa gggctagggc ttttagaaga caaagcttcc 1500
ttcacggatg cagaaggaga atgctgtttc tctgcgctgg gcaacctggg tttgaatccc 1560
atctctggga taagtgtgca gggcgcacag caggtgttcg gcacacagag cccttactga 1620
agatactgct caacaaggca gggctctgcct ggcgctggct tcaggccctt ggcaggggct 1680
gggcagccac tcttgcccat gccctggtgg ccccgagatg ccagcactcc tctgggtggt 1740
tggggaaccc acccaggggtg gaggaggtgg gcaaggcctg ggattccaca tctccagggc 1800
agcagacccc acggtctcca gggatcttgt ctgtgcccaa actcctgaga cttccctgtc 1860
ctttcccaca agggccctgg ctctggtggc tgcagaagtg ggaggagggg atgtggggga 1920
gtctggggaa ggccaccttc catgacgctc tgccaagcca ggaggagcga aggaataacc 1980
tggtccccgt gctggaccct ggactccagg aagcagagcc tacagccggc tcagccttgg 2040
gtcccctgcc tctgtggagc tggcctacc ccagatggcc actgtgcctg aggcccggca 2100
tctgaccctc tgtcttcct gccgaggggc cagaacagag gccccggcaa caggcaaggc 2160
gcagtgcacg gagctgacct cgtgcctcgg tccaggccta gcaacaggaa gtgagaggcc 2220
aatgccggtg aacgagatcc gaaagattag aggcctcgct gccgccccaa gttagaggac 2280
aagttcctgg aaggaggagg aagctgccgc agtaaataac gccagacccc agcgtcccag 2340
ctgtcagcag ccagtgcggc cgcaggctga tatggggttt cgctgtgttg accagactgg 2400
tctcgaactg ctgaccttgt gatccgcccg ccttggactc tcaaagtgtg gggattgaag 2460
gcatgagcca ccgcgccag ccctggggtg aaatctttgc aacgcacaga acccgcaagg 2520

atcagtatgc ttgcacatac caaccagcct gaccagtcaa tgagaaaaga ccagaacatg 2580
 ctcttcacaa agaggaattc aaacggctaa aacataagaa aaggggctgg gcgcggtggc 2640
 tcacgcctgt aatcccagca ctttgggagg ccaagacggg tgtatcacga ggtcaggaga 2700
 tcgagaccat cctggctaac acggtgaaac cccgtctcta ctaaaaatac aagaaaaatt 2760
 agccgggcat ggtggcgggc gcctgtagtc ccagctactc gggaggctga ggcaggagaa 2820
 tgggtgtgaac ttgggaggcg gagcttgcag tgagccgaga tcgcgccact gcactccagc 2880
 ctgggcgata gagcgagact ccgtctcaaa aaataaataa ataaataaat aaat 2934

<210> 1699

<211> 3411

<212> DNA

<213> Homo sapiens

<400> 1699

caacaattac tgtgatgttt gccaaatgat tttttttcta cttccatcat tccttctgct 60
 tttattaatt ggaattttat agaagagcct ttttttctca catttattta agtattagta 120
 tcaattataa tccatcactg tcatcatttt tatgctctgt tgtcccagac ttggccattg 180
 ggaaccccg c gaagtctgtt tctatgtcct tttgacatat ccttcattt tttcagcacg 240
 tcctttctgg tatcataaga tgctccaggc tcatctcatg cttttcttgc ccagctttgg 300
 aaccatccca ttacttaaag aagctctagt tccttttatt ggagaattgt atttagaaac 360
 tactctatgg gtgctagatg tgctaattgg ctttgggatg aggctggtgg tattattatt 420
 actattattt tggggcggag tcttgctctg tctcccaggc tggagtgcaa tggcgcgatc 480
 ttggcttgct gcaacctttg cctcccgggt tcagtcaatt cccgtacctc agcctcccaa 540
 gtagctggga ctacaggcgc gcaccatcat gccagctaa tttttgtatt ttcagtagcg 600
 acggggtttc gccatgttcg tcaggctggg cttgaactcc tgacctcgtg atccaccac 660
 cccggcctcc cagagtgtg ggattacagg cgtgagccag tgcacccgc cgctggtggt 720
 attattaacc ctctttacag ttggagaaaa ctaagctgaa gttaaaagtc ttattcacia 780
 taccaggta aggtgatcca gttgggatgt aaacttggac cttcttattg tggagtctgg 840

gttctttcca cttactctcc tgtggtactg tagtattcct ttcttaacat ttgcttttcc 900
attaattttg tcatttgtct tgccggacaa ggacaggaca caatctaatt aaaatagatt 960
caagaaaatt atttattaat aatagataca gttatttcaa tgcaaaaaat agtcattgca 1020
gtgccagaaa tatttatcat atgcttgcta tgtgtaaggc agtgtgccaa acattgctgg 1080
tatgtgagta tttgcatatg tactaggaga cattgtgctg tgaatgtttt tttttttttt 1140
tttttactgt ggctcttttt ccctagatac atatttaagg ggtagaggta ggtgtataac 1200
aattgtaa at tatgtcatta tccattaatt caaatgactt aggattttta tattatataa 1260
atatgcagaa gggttatata tatagcattt gtttacctgt acctcctttt agtgcactat 1320
catttcataa ttagagtaat actatacacc cgttaaataga tattgtttca taattgtaac 1380
attatacact cattaaatga tacatatattg ctaaccacag ttaagcactt tatgttgttg 1440
cgtttaattc tcacagtagc ttcattgagtt ggtcttattt ttcccatgtt tcagggtgagc 1500
aaacagactt aaattgactc acccaaggcg taataaatat tataagggtgg atttaaatct 1560
aatttttatg ctacctacaa tgtgaaatac tcttcctatt gtggatgtat tttgttcagg 1620
ctttcaagta tcattttaat tctcatgttc aggatttggt gagtaagtct attctgttta 1680
aacatttttt gacttacaca ttttgagcct gtccttttaa agtttttgcc tgatttatga 1740
aacactgtag tttatcctaa agaagtctta tggcagtatc attttactaa cttatggaac 1800
attcttctgg tctataaagt tgtgttaggt tagtgatcag tatccacaag taaaaagagg 1860
tggatatatt tttgtgctag tttataatag caggctaagt cttgggtgtgc atttcttttc 1920
tgggtcatca tgatagtttg gggctctatct ttataaaaaa tgatagtaat attcataaag 1980
cttatctttg cttctacatt aagagaagta aatttattaa aatttcttgt gtcagtataa 2040
ggacttttta aaacttttag gttcaagggt acacgtgcag gtttgttata taggtaaatt 2100
ttatgtcacg gggtttgatg tacagattat ttcgtcactg aggtataaag cataatactc 2160
aatagggtgg ttttttgatc tgttccctcc tcccaccctc aagtaggccc tgggtgtctgt 2220
tcccttcttt gtgtacatgt gtactcaatg tttagctccc acttataagt gagaacatga 2280
gatatttggt tttctattca ttcattagtt aacttaggat acctatggct tccagggtcca 2340
tccatgttgc tgcagaggac atgatctcat tcctttttat ggctgtgtag tattccatgg 2400
tgtacatgta ccatgttttc tttatccagt ctgccattga tgggcattta ggctgattcc 2460
atgtcttttc tattgtgaat aatgctgtga tgaacataca tgtgcatgtg tctttatggg 2520
agaatgattt atattccttt ggggtacttac ccagtaatga agttgctggc ttgaataata 2580

attctaactt ctttcagaaa tcgccaaact gctttctgca gaagctaaac taatttacat 2640
 tcccatgagc actgtataag cattcccttt tcttcatatc cttgccagca tctgttatatt 2700
 tttgactttt taagaatagc tattctgctg gtgtgaagtg gtatcttttg gttttgattt 2760
 ggattcttct aatgattagt gatgttgagc attttttcat gtgtttgtgc ttgtttatgt 2820
 atgtcttttt tttttaagtg tcttcatacc ctttgcctac tttttaatgg ggatatttgt 2880
 tttttgcttg ttaatttggt taaattaatg taaggatgta ttaatggcaa tggcaagtaa 2940
 tataggatta attatatctt agatatatta catcaaattt tataaatgaa aacaggtaag 3000
 aaataagaga aggtagaact atttgtgtgt gtgtttattc actagcagta ttgaaaacag 3060
 aaaactctca agacagaaat tcatgtttgt tactagagag ctcttagaaa ttattactcc 3120
 tggctgggag tgggtggccta tacctgtgat cccagcactt tgggaggtcc aggtgggcag 3180
 attgcttgag cccaggagt ttagggccagc ctgggaaata ggatgaaacc ctgtctctac 3240
 caaagattta aaaaattagc ctgggtgtgt ggtgcgagcc ttagtctca gctactctga 3300
 aggcataagg gggaggattg cttggtcctg ggagctggag gttgcagtga gccatggttg 3360
 tgccactgca ctccagcgtg gatgacacag agagaccctg tctcctcctc c 3411

<210> 1700

<211> 3511

<212> DNA

<213> Homo sapiens

<400> 1700

ctgctgacag tttctcgtgg gcccttccaa aaaacaaacc ttttctctgc attttcgagc 60
 acatgcgtgc atttccactt tgccatttac agcaagatga ctgcgctgct cacgtggggc 120
 tgctgcttgc atttttccct cgatttatct tgatgtactt ttcatgtcag cacctatcaa 180
 cgctccttt tttttttttt tttctttttt tgagatgcag tcttgctgtg tctactaggct 240
 ggagtgcagt ggcgcgatct tggcttactg caacctccgc ctcccgggtt cgggcgattc 300
 tcctgcctca acctcctgag tggctgggat taaaggcacc tgccacaaca ctcggctggt 360
 ttttttttgt gtttttagtg gagacgggggt tttgccatgt tggccgggct ggtctcgaat 420

tcccgacctc ggctgatccg cccacctagg cctcccaaaa ttctggtatt acaggcgtga 480
gcgaccgcac ccggtcccca gttctgtctt ttcaactgca cgcggtcaga gtcattatat 540
aaaaatcctg atggacattt ctccagtctg gagcagatcc ctagaagtgg gtttgctgtg 600
tcaaattggag cggctcctct tcttgcccc ggaagaggcc tgcccactcc gacctcagcc 660
atagagatac tttgctgtgc aaaatttggg aaacgtcagg acacacaggc accacttcgc 720
catagatagc actaagtctg tgtgtacaaa gtgcccacaa gggaagacgc tgtgttgctt 780
gcgcagctcc cccagggcag ctttttgtgt agtcaaggaa gtccctcagg ccggggcacgg 840
cggctcactc ctgtaatccc gacactctgg gaggccgagg cggggcggatc acctgaggtc 900
gggggttcga gaccagcccg gccagcatgg tgacatgccg tctctgctga aaacgcaaaa 960
aaattagctg ggcttgggtg gcgggcgccc gtggtcccag ctgctcggga ggctgaggca 1020
ggagagtcgc ttgaaccgga gaggcggacg ttgcggtgag ccgagatcgc gccactgcac 1080
gccagcctgg gcaacaagag ccaaaactct gtctcagaaa cacactcaga aaaaaacaga 1140
aaccacacaa acaaaaagtc actcagagga gctcaaggcc cctctgggtt tgccacttcc 1200
gaccgcgtgt ggggcttgta aaaactttgc ctcccgccac agctcagtgt tttgttaggg 1260
agcctccgtg gagcggccga cgctggctgg gctccatggg atcagctggg gctgctcatt 1320
cattcatttc cacatctacc cactgggctt ccaagttgaa gttcctgggg ctcccatgtc 1380
ccctcccat gaccttcaat cccacagagc ccatgggcac ggacagtcgc tctcactctc 1440
tgacattcct gcaagctgaa gtcacttctt ccttccacca aggccatccc gggccattcc 1500
tctgatcatc tgtttattgt gtctctgtgt gggagagaa tggtgaaga ggtggggctc 1560
cagttttggg aacatggaca ctgagagagt tggggatgga aaacaacata gaaggaagca 1620
aagccagagg ctgcgatggc catgctgcct ggccctggtc ccagacagac accccagcca 1680
gctttcctct tgcacccttt gtctgctggc cgcagcgtcg cagtgggagt cctgggcccc 1740
cttctccaaa tggcacacag aagcctcaac aggcacccac ctgggaaagg ccaaggccga 1800
gggcttgggg tgcacagtca agaacacgcc tcagctcagc atttgtgagc cgagtcactt 1860
tggcccatcg tttgtacaca gccccacct gctggttgac catgaccaca gggcaggcgc 1920
tgccacaggg cgtgggcagg ctggaccttc gagggcctcc tctgtctccc ctacctctg 1980
ccccccacc acttcccatc acccagtctg tgccaagggc actgaccctg tcttgtctt 2040
gcaggaagag gagcaggact tggatggtga gaaggggcca tcatcggaag ggcctgagga 2100
ggaggacgga gaaggcttct ccttcaaata cagccccggg aagctgaggg gaaaccagta 2160

caagaagatg atgaccaaag aggagctgga ggaggagcag agaactgaag aataacgaag 2220
ttatccttag cgtcctccta aaggcttttc cttttggcat cttaaaagct tgagagataa 2280
aacggaaacc ccagagagga gtctgggcag gctcccaggg tgcattgctgc ctccataaat 2340
ctgctgagct ctagaccctc aatcaggact tgtcccttgg ctagcaggat cctgggaaca 2400
cctttggccc tgcctgtgt agagatgttc atgtctgttc ctgtgggtca ctttgtaag 2460
ctgaagagtt ttaagaggta gagctcagac cctggactgg gatttttctt accactcaaa 2520
cttgctatcc acacaccctg cacaccttag ataaaaagaa cattttaaaa gcagagttca 2580
ctttcactcc agtctcccct cttttgccct cactgaagcc aaaccacaga agactttgag 2640
gaatgagaga caaatgaggt agagctcacc tgtgtcacc agctccgtca ggggtggctag 2700
ccgaccctt tccctgggaa cccacttct ctctgtggct ggcttggttg tcgggggtga 2760
gatgccatat tgattacagg gcagcaaaga accagtacca ggaatttact tgaccattcc 2820
ccttattttt catctagagg aatctcgat tcagccctt cattgctaag acaccttttc 2880
actgaggttc ttaccagctc agccaaatct ccactctgct atagcagaag caataatgtt 2940
tgctttaaaa agatttcttg acctatgcct tttcttagaa agtttgatag attagttaga 3000
acttcagatc atcagatcag tctcaaatgg gtttcttggg attttatatt tgacaatatt 3060
tatactatac caaactcatt tgcagttctt aggtttgttg gttaaaacat ttttttaaag 3120
cagtaagttt atagaaaatg ttttcattta atggaaggct gggtaatgtc cagcatcaac 3180
ccctatggca tgcattccca ggggccttct catctgggcc tggaaccttt ggttcagggc 3240
ttaggggaga acaggccaca tggcaacagc cacacagtca ttgccttcaa cacagagcca 3300
cgtgtcccca aacagcaata gtcattgcct tgtccaggct gggatctaatt tgacacaata 3360
ggctgttgac tccctcctag tagagctatc taggtttgtc tggaaagttt ccgaccctgg 3420
cttataggca ccacacctca tgtactcctc atggcttggg tctctgtatt cagcctttgt 3480
tcagtccaat aaactttgag tagatgatct c 3511

<210> 1701

<211> 3254

<212> DNA

<213> Homo sapiens

<400> 1701

atttatatac ttgatttcag cttttgcctt agatgagaag actggctaac tctgggataa	60
gagtgccacc aaaattttca cccacagatt ggaagcacat caaaagaaat catactttca	120
cggaagtcac ttttttttgg ttcctggcct ttaggggctg aatctgttta gagaagtaga	180
gatggaaatc tcaatcaaaa cagtcttgag tattttacat catttaaaaa aatttgcac	240
actgaagaga aggaacccta atcatttgaa actctcactt ctgctttgca agttgtctgc	300
tggctatatt cagtcctctt tgtcttcttg gtcttaggca ggcatggggg tagtggccag	360
ggcagaactg ggaatgggac aagtttgtgt tcattcttct ccctaccctt gtaacagcct	420
taatttctgt atctctgttt cctatctggg gtgccctcta gtcctcatct ctgaaggga	480
ggaacaaaga gatgagtga tttctttactc ttagctgtta gtcattccacc ggcttttct	540
ccaagggatg tttagtgttt ttaaaagaac ctgatggtag aacagaaaaat cagagttaa	600
ccaaggtat cacccttcta atgatagtat ttcctgtact gctaagagca taatctgggg	660
cttggtagcc tctcagagat agcaccttgt gttgtcccct ttaggttaga gctgcggaac	720
cagcaccagc cactgaacat gaagaagggt ttgactttat ctttttaa attgcatatt	780
cagacccatg tcagagtcca cgaaaattct tgcaaatgtg tttttgtaag agctgggtgt	840
caccctgctt ccccgatatt ggtgttggcc aatgggagag ttatgggaat gtcatttcc	900
ttctcaaag ccacttaaag ctgtgctaaa ttgtaggggt tttttttga taatgctttc	960
tcctcagggt actctctcaa ctactccct tcaggaaaat ttcttgaatg aatagtcac	1020
cagtgtgtc tctgctttct caacaccaga tcattctgca acctcttgca atttggtgc	1080
tatctctagt catgttacta agttatcttt ctcaaagaat ctccattggg caccaca	1140
tcatagccat tggctctcag ccttcacttc tgactgggta ttctctacct gggggcattt	1200
ttctttcttt tctccctctc ttcctcttct ttggctggcg ttactttttt cagtctctga	1260
aggggaagctc actcctagga gacttgctta atagaatgtt tatcgctgc atgtctttag	1320
caaagagggtg tctggaattc ccatctggga ttatttagtc taaatattca ggtggtccag	1380
tgccggatgt tagttcttaa cttaaaggaa acaaagtctt caatccgagg atggtgagat	1440
tgtgtgtgt ctacagtggg cagccgtgc tgggtgtctt ctgcccctgg aatgccatc	1500
aactgaaatg gaattttgtt caatccatct tattaatagt tcctaaagca attgtggtgg	1560
ggttgatagg tggctagtaa ggttgccctc gtaaagataa gcacaatcca ttaattaagt	1620

ctggagtcca ctggacttct accggggatg tttgcatttg ctcggcactc tgttttataag 1680
gatgtcgaag gaagtgcgtc cattctgtgc atgttgtaaa acagaagggtt tgcagctgtc 1740
agattttat 1800
agattgtcga aaattactaa cctcggttct gcagatgccca tgcagatttt cttgtcttgt 1860
tttctttctt tgaagatagc agatatattat gtacatagtt tcttgtaagg tacttttttg 1920
ggaagaggag attaagatta ttcttatatg ctatcataat tcagtattat gaaattatta 1980
aatgattatt ttattagtta tatagtgtt tgaaagtgtc cagcatgcat tgtatgtctt 2040
agaaaggaga acaaacaat gcaagggtata atcttggtt ttaaataagct tatggagctg 2100
cctcaaagac aactaacatc aagattatca actttaagta tagcacaagt tcactgtaga 2160
agtataggct cactgtgggc ttcagtaggc ttttaagagg agttgggacc tgagtatggc 2220
tttgggtagg gtaagaagcg gatataacag ctgaaaaaat agaccagcag cagctgcccc 2280
cgctgtgtga ccacacaggg tgtcatgatt catcataagg tttgtctcaa gtaatttcca 2340
gttaatgaaa acaagtgtca aaaatttctg aatgattcct tttcaaacca ctcatatcta 2400
tgtgtgtgtg ggcgcacatt catgattttg cctcaagtag catcattcac actcacttgc 2460
attgccattg ctttctttga gagtgtgagaag ttgggtacttc agctgggtgta ttagtctgtt 2520
ttgcattgcc aaaaagaaga acctgagtaa ttataaaga aaagagggtt atttggctcc 2580
tgattctgca ggctatgcaa gcatggcacc agcatctgct cagtttctgt tgaggcttca 2640
ggaagtttt cctcatggca gaggtgaaga aggagcagat gtgtcacaca gagagggagc 2700
aagagagagg ggaggaggta ccaggctctt ttaaagaacc agctctcgca tgaactcata 2760
gagcaaggac tcactcggtta ccatggggag ggcaccaagc cattcattaa ggatccacct 2820
ccatgaccca aacacctct atcaggcccc acctccatca catttcaaca tgaggcttgg 2880
aagggacaaa catccacact gtaatagctg gcatcctggg aatggggcct caccacagc 2940
ctgtcctatt ggtgttgctt tcatgggtgc aaggactgag gcagccaatt cttgtgtggc 3000
aggatgaat taacatattt ctgcctcag tgagcatttg aattttcaac cactgtctt 3060
gtttaaggga aactagctta aaatctgtta ggcaacgcta actagagatg atggctttac 3120
tgactgtgtc aggaatggag agaaaaaaag gccaatccag gaaacatttt gatgtgagat 3180
tagaaataag gggagacaga gcagcataag tcaaagataa ttgtaagggtt tgtagccccc 3240
agtcctaag tgag 3254

<210> 1702

<211> 3540

<212> DNA

<213> Homo sapiens

<400> 1702

ttctggaaga	agaagaagag	catgatcggc	atgtccacca	aggcaggtag	gccccccgag	60
cgtggccctg	ctcagatact	tcgccccagg	gagctcactg	gagcctgcgg	tagagggctg	120
cctgcctcac	tgctggctgc	agacacagcc	ccgggtgtgt	gcttggctct	tgagaagcct	180
ctgagaccag	gcaccgtaaa	gcccagggag	ccgttgcggc	aattgtgggtg	gtaccatcag	240
aggctgcacg	gctcagggcc	tccagcggct	gcacagctca	gggcctggct	gcggactctg	300
gcgtgcatgg	ggtctgggtc	tgggctgtgg	agagtgagat	gcatggacct	ctcgagcctt	360
cccggctgct	catgggcgct	gagcagggct	ggggcctcac	atcccctgtc	ttggttcctt	420
cgccccgtcc	tcccggcggg	gttccttccc	cgaccagcgc	aggcctgggc	gtgtggggcc	480
tgccaggtga	tggcagttaa	taggcccgtg	gtgctgtgcc	cagcagtgc	aggcagtgtg	540
cagctgttag	gtagggcagt	cagggacccc	tgaggccagg	cagcccaggc	aggaggcctg	600
ccaagatctg	ggaccagtgt	tcctggccaa	gggtgcctgc	cgtggtttaa	ggggcccaag	660
tgagtgaggg	gtcctcctga	ccttgcaggg	gtggaggttg	tcacagtggg	gtggggagcg	720
gcggtctgga	caggggagag	cggttgatgg	gtgtgaggac	gaggagtggg	tgtgtcctgt	780
tggttaggag	tgaggagcat	ttggctccag	tatcagaccc	gaacaagttg	ttttctctgc	840
atggaaaaga	cgcccaagca	ggtggccctg	gctgcctggg	ggccgtgccg	tgttctgcgt	900
tgttgtctcc	taacccta	gcctttcctg	gcgtcctggg	ttggagtggc	cagcagacag	960
tggctgtggc	cttgaccact	gtttgtcctg	tggctccatg	gatctgcttc	ccctgcttgc	1020
cctcagggct	tgcaggagga	ggaagacgtg	ttgaataagc	tggagtgggt	cttaaggtac	1080
agctggggag	gaaacaaatc	cagacttgaa	aagccacgcg	cttatcacag	aactggcata	1140
agacacgccc	ggaagcaaag	ctgtgctggc	cccgatcatc	gacctctgcc	cacgttccat	1200
gctcatttgc	aagtgtggct	cagacacgtg	tttgtggagc	tggtgtgggg	ccagctgttc	1260
agttcagcag	ccttccaaac	actttcctag	ctgctgaatg	cttcattgtt	ctttttaaac	1320

ggggtgacgt ggactgggga gtacctgaag cttcttgggc gtggtgggtt gggatggggg 1380
actgggggta tgtgtgtgac ttggggaaca caggtgggggt ctgccctgca cccctccca 1440
gcccgaccat cctgtcccca gtgctctggc gctgcttcag caccgtggtc atctttctgt 1500
tcctgctgga cgagcagacg agcctgctgg tgctgggtccc ggcgggtgtt ggagccgcca 1560
ttgagctgtg gaaagtgaag aaggcattga agatgactat tttttggaga ggcctgatgc 1620
ccgaatttca ggtaggattt agttgtaatg gctgaacccc aagcctctct gaagagtgtg 1680
attttgcccc ctgcgcaaag agtaagatgg ccatctgcag atgagtcacc gcgggcctct 1740
gtcaggggag cctccgtggt ggaggcagca ctggtttctg atcgagcca ctctcttcgc 1800
ctgaggattc cccggtcata tacctagttc tgaccgtctt cagtgcagac ggcagcactt 1860
ctgggcctga gccggcctct gggaggaagg atgctggctg gccagcgcgt gtgcttcgtt 1920
ttggcacctt gtccagaggc gctcccgagg ctggtgctga ctgggggtccg tacagtcctg 1980
gcagtcctga agtgagttag cccctgccct gagctgggtg ctgccccagt gcctgggcgc 2040
ccataaggcc cctaggcaga tgagggtgg ggcagagctg gagttgaatc tcagtgccca 2100
cggatggacc ttgattgagg cggggccctc agcagtcaca ggctgagatt ttccatgctg 2160
tgggcagggg ggtcaggaag cccagcacac gcagcgcagc cactgtgttc caccttgccc 2220
catggctccc ggccggctgg ttccggagcag tgttggctgt gcctgtgtgc tctgcagtgt 2280
tctcactgaa gcggtggcac tgaaaactga gccacctgag caaggaacag cagtgaggcc 2340
gcgttgcccc catcaggctt gtgggaccca gggccagggt gaggcgggaa ggatccatgc 2400
ggatccccgt cctctgggtc ctctcctcgc ctggtaggga cctgagcgcc ctctgtagt 2460
aggcctgggt cagctctgca gccatatgtg acgcccctta gtcacagctc agctgtgctc 2520
agatcctccc tgagtctatt aatatcactg tgttgaattt cacaacagtt tggcacttac 2580
agcgaatctg agaggaaaac cgaggagtac gatactcagg ccatgaagta cttgtcatac 2640
ctgctgtacc ctctctgtgt cgggggtgct gtctattcac tcctgaatat caaatataag 2700
agctggtact cctggttaat caacagcttc gtcaacgggg tctatgcctt tggtttcctc 2760
ttcatgctgc cccagctctt tgtgaactac aagtgaagt cagtggcaca tctgccctgg 2820
aaggccttca cctacaaggc tttcaacacc ttcatgatg acgtctttgc cttcatcatc 2880
accatgccca cgtctcaccg gctggcctgc ttccgggacg acgtggtgtt tctggtctac 2940
ctgtaccagc ggtggcttta tcctgtggat aaacgcagag tgaacgagtt tggggagtcc 3000
tacgaggaga aggccacgcg ggcgccccac acggactgaa ggccgcccgg gctgccgcca 3060

gccaaagtgca acttgaattg tcaatgagta tttttggaag catttggagg aattcctaga 3120
cattgcgttt tctgtgttgc caaaatccct tcggacattt ctcagacatc tcccaagttc 3180
ccatcacgtc agatttggag ctggtagcgc ttacgatgcc cccacgtgtg aacatctgtc 3240
ttggtcacag agctgggtgc tgccggtcac cttgagctgt ggtggctccc ggcacacgag 3300
tgtccggggt tcggccatgt cctcacgcgg gcaggggtgg gagccctcac aggcaagggg 3360
gctgttggat ttccatttca ggtggttttc taagtgtcc ttatgtgaat ttcaaacacg 3420
tatggaattc attccgcatg gactctggga tcaaaggctc tttcctcttt tgtttgagag 3480
ttggttgttt taaagcttaa tgtatgtttc tattttaaaa taaatttttc tggctgtggc 3540

<210> 1703

<211> 2781

<212> DNA

<213> Homo sapiens

<400> 1703

agaacgccat cagctcgctg cttaaagccg tgtttgctct cattttctca aagaaatctg 60
ttttagtttg agattacagt ttatcaaagt ttaaggcttt gaccccaaaa tctggtccca 120
gaaagacagg aaggccagct aagaggaggt tttcagagtg catagaaagg ctgctctgtg 180
cttcggcatt tgttctggaa gtgcttcttc gggttgcaaa gattcctagc aaaacctttg 240
actggaggct ttacagggcc atacacccaa taccactaat gacagtgttg taaaatagct 300
tttgtgcacc atgcttagga ttcaaggagg ataaagtata tctttctaaa gttatacttt 360
agaaactgtc attccatgtt gaaatgataa acattccatg tttatctttt gtgtaagaag 420
taaaaaagca aaaattcatt gcatcaaagt aggtcaggca ctgttaaagc caagcttccc 480
catcgcctaa aaaatgtgga caaactcaga ggaagtcagt gattataagc tgatccctgg 540
agccagttct tacataattg tgttagtctg ctctccaag aagcagactc caagatagaa 600
ttaaatatgc atggatttta ttaggggaaa tgctgttgtg agagagaatg aggagagaac 660
taggtaaggc tgtgagagcc atcagacctc gatgcaagtc caccgcgag ggaggaaaag 720
aaggaaacca gggtgagtgg aagcatccca gacagctgtg cagtctaaga gaacttcagc 780

aagattaaac cacaggttcc attatgggtc gacttgatgg gaaagtcac atcctgacgg 840
ccgctgctca ggggattggc caagcagctg ccttagcttt tgcaagagaa ggtgccaaag 900
tcatagccac agacattaat gagtccaaac ttcaggaact ggaaaagtac ccgggtattc 960
aaactcgtgt ccttgatgtc acaaagagga aacaaattga tcagtttgcc aatgaagttg 1020
agagacttga tgttctcttt aatgttgctg gttttgtcca tcatggaact gtcctggatt 1080
gtgaggagaa agactgggac ttctcgatga atctcaatgt gcgcagcatg tacctgatga 1140
tcaaggcatt ccttcctaga atgcttgctc agaaatctgg caatattatc aacatgtctt 1200
ctgcggcttc cagcgtcaaa ggtgggtctg tctccttccg aggactgcga tgctcataca 1260
cgcacatcat taagagctct gcgtttggga acaggcatag cagagattat aatttcaagt 1320
attgaaatga tttcaaaact gcttttttca aaattgggtat taagttcctt aactacagat 1380
cttttgctct cgatgtgagc cagtggtaaa attaaattaa aatgtgggggt atttttgccc 1440
tcccttttat tctttctaata ggacatggaa atgaacatca aactgggaga aagaaccatt 1500
taacatttaa ttaatttaaa atagtgtatt gagcaccggg atgtgctctg gccataaaag 1560
aattcacagt ccaaaactag gagcaaggca gcaaacaatca tcttctccag tgtgatgata 1620
tataacagag gtttgtacaa agcgtgttca aaatacaggg aaataactgc ctgtgagttt 1680
gtggaatgct tcacaaagac agttgatctg agccatcagc aagaagtcaa gttgaaggac 1740
aaggacagca gtacaaaatg tggattatgt cacaatctgg catagttgga tctgtgagct 1800
taaaatgaaa tagttactgc tgagatacca tttcttctct ttgcaaggat acacatatc 1860
aacatacaca agagaggaat gtaaagaagt gcctaggcct cctgttttat tgttttgttt 1920
tgttattaat cttcattttc ttttggaatc tgcctaagag ttatggcaac tgatgatgag 1980
aaactaagac taccaatgtt aagtaagttc agcatttcaa ttaagtctca attaagttgt 2040
gcctatactg atattatttc cctagatcca gaaactgact ctattgaagg aaaaaaatct 2100
gatatcaatc tttttaaaag gggaggaatg tgggagaaag catgaaaatg gctactggga 2160
aaacttattt gtgttacctt tctgaaggaa aatacatttt ttattccttc aattgttgaa 2220
cctttcctcc accctcagga gttgtgaaca gatgtgtgta cagcacaacc aaggcagccg 2280
tgattggcct cacaaaatct gtggctgcag atttcatcca gcagggcac aggtgcaact 2340
gtgtgtgccc aggaacagtt gatacgccat ctctacaaga aagaatacaa gccagaggaa 2400
atcctgaaga ggcacggaat gatttcctga agagacaaaa gacgggaaga ttcgcaactg 2460
cagaagaaat agccatgctc tgcgtgtatt tggcttctga tgaatctgct tatgtaactg 2520

gtaaccctgt catcattgat ggaggctgga gcttgtgatt ttaggatctc catggtggga 2580
aggaaggcag gcccttccta tccacagtga acctgggttac gaagaaaact caccaatcat 2640
ctccttcctg ttaatcacat gttaatgaaa ataagctctt tttaatgatg tcaactgtttg 2700
caagagtctg attctttaag tatattaatc tctttgtaat ctcttctgaa atcattgtaa 2760
agaaataaaa atattgaact c 2781

<210> 1704

<211> 2863

<212> DNA

<213> Homo sapiens

<400> 1704

acacggcgcg ggatggacgc gcaggactgc caggcggccg catcgcccga gccgcccggg 60
ccccagccc gtagctgcgt ggccgcctgg tgggacatgg tcgaccgcaa cctgcggcac 120
acagtcccca gctgccgggg ggaagatgcc aaggggaagg actgttgctg gtatgaagca 180
gcccttcgtg atgggaaccc aattattgtt tatcttcacg gcagtgcaga acacagggca 240
gcttcgcaca gactgaagct ggtaaagggtg ctgagtgatg gtggctttca tgtcttgtct 300
gttgactaca gaggatttgg ggactctaca ggtaagccca cagaggaggg actgactacg 360
gatgccattt gtgtctatga gtggaccaag gcaagaagtg gcatcactcc cgtgtgtctc 420
tggggccact ctctgggtac aggagttgca acaaagtctg caaaagtgtc agaagaaaaa 480
ggatgccagc ttgatgctat tgtcttggaa gctccattta ccaacatgtg ggttgcaagt 540
atcaattatc ccttgttaaa gagtctggct ctgtcgtcca ggctggagtg cagtggcgtg 600
atatcggctc actgcaagct ccgcttccca gggtcacgcc attctcctgc ctcagcctcc 660
cgagtagctg ggactacagg cgcccgcac catgcctggc taatttttct gtgttttttag 720
tagagacggg gtttcaccgt gttaggcagg atgatctcaa tctcctgacc tcgtgatccg 780
cccacctcgg tctcccaaag tgccgggatt acaggcgtga gccaccgcgc ccagctgata 840
aagagagatt tctaaattta atgtggacca atttaccat atttttcttt atggtaactt 900
ttatgtcatt tataataaaa ctctgcttac ccaaagatta tcaagatact cttctatgtt 960

gtcttctgga aactctatTTt tacctttttac atgtaaagtt ataatccaca ggTTTTagatt 1020
tttgtatgga ggcaggggtc cacatgagtg tctaattggT ctagagtcac ttattaaatg 1080
gaccttcccc accactatgc agtgctaattg tttgcatata tcagtgtcta tacatataga 1140
gagaggTctg gtggtaggtt ctcattttctc tccattgtct atctgtcaat cTTaatatac 1200
tatggTcttt taattactat agcttttataa tatgtcttga tatctggttg tataagttcc 1260
tcagctttgt cttcttattc aggattgtct tggctattct taacgctttg catttcggta 1320
tacattttga aatacacttg tcatgttcta cagaaaactt gctgggactc tgggattgca 1380
ttggatctat ttgggggact tgagatcaat ttgggggact tggtatcttt ctaacattga 1440
gtcttcaaat tcatgagtat tgtgtttttat ttattattta tttattttaat tttacattta 1500
tttctcattt aggttttgtt tagttttcagt tttaggTcat attctcctag aagcaaagcc 1560
tgagacagag atttggTgtg tttgattttat tgaggaaatg ttcttcagga aaaaatccaa 1620
aagggaatga gggtagtagc actggaaagg gggaagagca gaacaaggac gtgacctcag 1680
gcaaagtcta gctttggcct gattcaggcg gggTgctaag ctttgaagca aagggcctgt 1740
tgtttctgcc ctccgctaag gtaggcagtg gaggaggggc gggaggatgg cgtaacctct 1800
taggagtgat ggcttctgtc atctaagaat aaggagaagc agccaacact cacagcagaa 1860
gttaattaat tttgtcagtc ttttcaaaga accagctttg actttatctt ctgtgttata 1920
tggtttctat atttttaatt tctggtttta cctgtattat tccctttctc atatgttctt 1980
tggatttaag ttgttattta aaaatttctt tagatagTac ttaataccat ctaataattt 2040
atttttacta tttttttcta atttatgtac taaggcatac ttcacctaaa ccacacttca 2100
gccgcaacca aattttgaag tgtgttctaa ttatcattta gttcaaaata ttttataata 2160
ttattgtgat ttctccttg actatatgga ttatttagaa gtatgattca taacttctat 2220
gcatttgggc atttgattat gatTTTTatt gatTTTTacc ttaaatctct caagatccaa 2280
gaatatactg tgtatgattt tagtcttttg aaatttgttg agactcactt tgtgtaccaa 2340
tgtatggtca attttggcaa attttccata tgcttgaaaa gaatgtgttc tgctgttttt 2400
catgcagtgt tctatgtacg tcgattgaat cgggattatt aaccatgctt aaatttgtca 2460
ggcctctgag cccaagccaa gccatcgcat cccctgtgac ttgcaggtat ctgcccagat 2520
ggcctgaagt aactgaagaa tcacaaaaga agtgaatatg ccctgccccca ctttaactga 2580
tgacattcca ccacaaaaga agtataaatg gccggtcctt gccttaagtg atgacactac 2640
cttgtgaaag tccttttcct ggctcatcct ggctcagaag ctccccact gagcaccttg 2700

tgacccccac ccctgcccac cagagaacaa cccctttga ctgtaatttt ccattacctt 2760
cccaaatacct ataaaacagc cccacccta tctcccttgg ctgactctct tttcggactc 2820
agccccacctg caccaggtg aaataaacag ccatgttgct cac 2863

<210> 1705

<211> 2957

<212> DNA

<213> Homo sapiens

<400> 1705

gcagctccgc ggccaggggt ggaaggaagc cgcagccgca gcccgaagtc aacccccgct 60
gccccgtccc accgtctcat ctctcccccc tcgcagagac ggggtttcac catgttagcc 120
aggatggtct cgatctcctg acctcgtgat ccacctgcct cggcctccca aactgctggg 180
attacaggcg tgagccactg cgccctgcct ggaccattgg ctttttccat gaagaagagg 240
caacattgag tggcgggaaa cacttttttg catctctcca attcagctgt tagcatctcc 300
tagtgtcttc ttcacagcta acagcttttg ctacttgctc atgacactcc gtctctgac 360
acagagcaaa tccactgtct ccattgggtt ccagtactag tactcaattc tactcaatcc 420
cacctgattc caggagacat aatggagaag tgcacgaaat catcatctac catgcaggta 480
gagccttcct ttcttcaggc agagaatctg attctgcggc ctcaaagca gcatccaacc 540
acggagaaca ctgctaaaag gggccaagtc atgcctgccc tggccaccac agtgatgcct 600
gtaccatact cacttgagca tctcaccag tttcatgggtg accctgcca tttgctcagag 660
ttctcactc aggtgactac ctacttgaca gctctccaaa tctctaattc tgcaaagat 720
gcccagatca aactcttttt tgattacctt tctcagcagt tagaaagttg tgggatcata 780
tctgggcctg acaagagtac cttactgaag caatatgaga atcttattct tgagttccag 840
cagtcatttg gtaaaccac aaaacaggaa atcaatcctc tgatgaatgc taagtttgac 900
aaaggagaca actcctctca gcaggaccct gctactttcc acctcctcgc tcaaaatctg 960
atctgtaatg aaaccaatca gagtggtcag ttcgaaaagg cactagctga tccaaccag 1020
gatgaagaga gtgtcactga tatgatggac aatcttccag acctgatcac tcagtgcatt 1080

cagttggaca agaaacacag tgacaggcca gagctcctac agtcagagac ccagctccca 1140
ttgttggctt ccttgatcca acaccaagcc ctcttttagcc ccacagatcc accaccaag 1200
aaagggccta tacagctgcg agaaggccag ctgcctctca cccagccaa acgagcccg 1260
cagcaagaaa ctcagttgtg cctctactgc agccaatctg gtcacttcac aagagattgc 1320
cttgccaaac gttctcgagc tccggcaacg acaaataaca cagctcacca gtaagaggag 1380
accaggaaag tcacttttta aacttacatc ccagccttac tgatttataa cctgcattaa 1440
cttttaaaat acagatgggg aactgtgaca ccactttata ggcagttatg aactgacacg 1500
ctttggggga atctaaacaa tcagatcttg ttcatggca aattaccct cagaaacct 1560
aaccgagaa tgatgaaaac aattcacagg cactttctgc agttgggatt aattctccaa 1620
gagcacaaa aacctgcagg caaaactttg cccagctctga gccaatgaaa ataaccgtgg 1680
aagcacattg ggaaccttat cctgaccaat ggggtgacatc tgggttgagt ttgtgtccca 1740
aatcctgaat cttgtgtgcc tagaaatgag cccaagactt ttaccttcac ctttattggt 1800
ctgtatccta gtttctgtt ggcttaggac tttggctgaa gtccaaatga cattcctata 1860
atctgcttat atttctctcc tagagtttgg accatgcttc acctattgac tacgatctac 1920
cttcagcata aatcaacctt cctggaacca cagctctgcc acccttccat agagctatat 1980
gttttgtttc catctaaaga ctcatgcttt cccaacaaac agaacctcct ggctattttac 2040
aaaccagatt gaatgggcat ttgaatactg cttggaactg ttggtccctt tttctttgca 2100
ggctagccca tcaggcaggt gtatgctttt agccaagccc accaattcca acttattcct 2160
ctcttctcca acaacctac ttgaggttcc agcatgtctt atagccaagt caatatgctc 2220
taggataagg atttctgaaa ggtatttagt gagagttggg gatggtgtgt cataattact 2280
gtatctgtag catgtccttg ctgccttgga caagggacct ggccaaataa atctccactg 2340
aagactgaca gccagacct gcagtagttt ctaactctag aagcctcaat gtagtcacca 2400
tctaggatta ctactcattg ctattgagct ctacctttat ggaccacctc tgaagtcctt 2460
catctaattg aggatcttaa aaaacaatga atggcaaaaa acttctaca ctatctcatc 2520
tgaaaaatcc tggggcacat acattaaaac catttgtgca caaaactcag gaagtcggga 2580
ttttattttt tatgttttac tcttgggtaca caccagcttt gtgtagattc ctgatgcttc 2640
tgaacaaaag tagtgttatg ctagaaaggc aaaactccct aaaatgttaa aactgttcag 2700
caatgatcac tgctggtaat taccagccct ctgttccctg cttcttgttt ctgatgtatg 2760
tccccaaaat ggatatcctg gagaaatata agtaatcaca tattccctag caaccatcaa 2820

ggcctctcag aacatgaaat ccattgtac ttggctttg tttctggaga attatgctaa 2880
ctttgacaat acttaaacct aactaggacc ttactactct gattctgtag caccaataaa 2940
tagatatattt caccttg 2957

<210> 1706

<211> 1244

<212> DNA

<213> Homo sapiens

<400> 1706

aacactgcat ttacagcgcg catagcgccc acgcacgcgc actgggggtgt ccgccgggca 60
tcgctctgtc cagttattcc agtttctctg ggagcagccg agttgacccc acggtctgag 120
atgtccaagc tgcccacaga cagcagtgtc ccgcagacag gcgcggcgaa tggtagacaga 180
gacgtcccg c aggcggaggt aggcgcggg aggcgggagc cggccccggc acagcctgag 240
gaggccaggg aaagcccggc ggcggcggcg gccagggaag cccggatggc ggaggtcgcc 300
cgcttgctgg gggagccagt ggacgaagag ggtcccagg gcaggcccag gtccagacac 360
gggaacggag gcctggctgc gttgccctat ctccgtctcc gccaccact tagcgtttta 420
ggcatcaatt accagcagtt tctccgccac tatctggaaa attaccgat tgctcccggc 480
agaatacaag agcttgaaga acgccgcagg cgattcgtgg aagcctgcag agcaaggga 540
gcagcgtttg atgccgaata tcagcgaaat cctcacaggg tggacctga tattttaacc 600
tttacgatag ctctgactgc ctctgaagtt atcaaccctc tgatagaaga acttggttgc 660
gataagttaa tcaatagaga atagttatgt ggtgacacta cttcaagaga acctctgcat 720
tccagtcata ccaatcctgc aacttgattt tcagaagtca agagtatatc gcgataagac 780
agtgcacagg tggaggggaa aaaaaggggg agggggaagc ttatcttgaa aaagcatcac 840
agaagtagaa aaaaatgtcg aaagcattat aactgtaacg ttctttgagt ttgtgattga 900
tccacatttt tccccctgca ttatggaaaa tgtctctcag cattgcttta ttacaaagta 960
aaggatgggt ttataaaatt gagactgatg aaacatcaat actagagccc atgaggatga 1020
aagaaattat caaatagtgc tgaacagaat aagatgttaa cgctgagtta ttaggactgg 1080

aaggctatga aaagaacttg aaattgtcgg aatatgtgct ctcttcatgt catattcaat 1140
agaagtttct agtttaagat tgattttgtg ttttcttagg catttcaagt gacaagcaaa 1200
gtaaatgtat atattatgtg ataaatcatg ttttcaagaa cgtc 1244

<210> 1707

<211> 2164

<212> DNA

<213> Homo sapiens

<400> 1707

ttttctgaat attttctctc aatgcttggg tgaatcccca tctatggaac ccgtggatac 60
agagggccag ctgtagttat attacacata attattggat ataattcata cagttaaaaa 120
atttaagagg gaaaagtga tagaagtaaa agcattacaa aagaagaagt ttagatcagt 180
gtacgaagaa gctataagaa aaacatcaaa ggtccaacgt ggagattgtc agggctgctg 240
gcggtgtgga gagtactga aggtgcaagc tgcattgtcgg gggagctggc ggtgtgcaga 300
gtgactgaag gtgcaagctg catgtcggag ctggcggtgt ggagagtgc tgaaggtgca 360
agctgcatgt cgggggagcc ggcggtgtgc agagtactg aaggtgcagg ctgcatgtcg 420
gagctggcgg tgtgcagagt gactgaaggt gcaagctgca tgtcggggga gctggcagtg 480
tggagagtga ctgaaggtgc aagctgcatg tcgggggagc tggcggtgtg cagagtgact 540
gaaggtccag gctgcatgtc ggggttgctg gcggtgtgca gagtactga aggtgcaggc 600
tgcattgtcgg gggagctggc ggtgtgcaga gtgactgaag gtgcaagctg catgtcgggg 660
gagctggcgg tgtgcagagt gactgaaggt gcaggctgca tgtcggggct gctggcggtg 720
tgcagagtga ctgaaggtgc aggctgcatg tcgggggagc tggcggtgtg cagagtgact 780
gaaggtgcaa gctgcatgtc aggggagctg ccggtgtgga gagtactga aggtgcaggc 840
cgcatgtcgg gggagctggc ggtgtgcgga gtgactgaag gtgcaggctg catgtcgggg 900
gagctggcgg tgtgcagagt gactgaaggt gcaggctgca tgtcggggga gctggcggtg 960
tgcagagtga ctgaaggtgc aggctgcatg tcgggggagc tgacggtgtg cagagtgact 1020
gaaggtgcag gctgcatgtc gggggagctg gcggtgtgga gagtactga aggtgcaggc 1080

tgcattgtcgg gggagctggc ggtgtgcaga gtgactgaag gtgcaggctg catgtcgggg 1140
 gagctggcgg tgtggagagt gactgaaggt gcaggctgca tgtcggggga gctggcgggtg 1200
 tgcagagtga ctgaaggtgc aagctgcatg tcaggggagc tgccggtgtg gagagtgact 1260
 gaaggtgcaa gctgcatgtc gggggagctg gcggtgtgca gagtgactga aggtgcgggc 1320
 tgcattgtcgg gggagctggc agtgtgcaga gtgactgaag gtgcaggctg catgtcgggg 1380
 gagctggcgg tgtgcagagt gactgaaggt gcgggctgca tgtcggggga gctggcgggtg 1440
 tgcagagtga ctgaaggtgc gggctgcatg tcgggggagc tggcgggtgtg cagagtgact 1500
 gaaggtgcgg gctgcatgtc gggggagctg gcggtgtgca cagtgactga aggtgcaagc 1560
 tgcattgtcgg gggagctggc ggtgtgcaga gtgactgaag gtgcacgctg catgtcgggg 1620
 gagccggcgg tgtggagagt gactgaaggt gcaggctgca tgtcggggga gctggcgggtg 1680
 tggagagtga ccgaaggtgc aggctgcatg tcggagctgg cgggtgtggag agtgactgaa 1740
 ggtgcaggct gcatgtcggg ggagctggcg gtgtgcacag tgactgaagg tgcaagctgc 1800
 atgtcggggg agctggcggg gtgcagagtg actgaaggtc catgctgcgt gtcgggggag 1860
 ctggcgggtg gcagagtgc tgaaggtcca tgctgcatat cgggggagtg cattcggagt 1920
 gttctcatct gtctcatccc tgaccacgtg agtacgcagg acacctgtgt ctgtgttaag 1980
 ggagttcggt cctaagtgtc ctcatctgcc tacttccatg actgtgtgag taaaaagggc 2040
 tcaggtcaca cacaagaagg aagaaattgg aaaccagga acacatatca gaggaaccca 2100
 actgaaaaca aataataaaa tgcagacgta cgttctaata gtctaaatac gagacagaat 2160
 ggat 2164

<210> 1708

<211> 2491

<212> DNA

<213> Homo sapiens

<400> 1708

ctggtgcagg ctgccttcca ccgcttccat tgggtcccgct gcagcaagct ggagctcagc 60
 cgctacctcc cgtaggtcat tcctgccctc agagctggga taggggagta tgcgacctgc 120

cactctgagc agacatcaca cagctggctg gcttccccac gtcgcccctg gcttgactct 180
tccgtgactc atctcgcctc cccgccaaac ctggcctaaa acatacccca ttagcatagc 240
agctcctacg actgcctcct cgatgacccc ttigatcctg cctggcccca gccccagag 300
ctgcctggga tcaactactc aatggatgag cagtgccgct ttgactttgg cagtggctac 360
cagacctgct tggcattcag gacctttgag ccctgcaagc agctgtggtg cagccatcct 420
gacaacccgt acttctgcaa gaccaagaag gggcccccg c tggatgggac tgagtgtgca 480
cccggcaagt ggtgcttcaa aggtcactgc atctggaagt cgccggagca gacatatggc 540
caggatggag gctggagctc ctggaccaag ttgggtcat gttcgcggtc atgtgggggc 600
ggggtgcgat cccgcagccg gagctgcaac aaccctccc cagcctatgg aggccgcctg 660
tgcttagggc ccatgttcga gtaccaggtc tgcaacagcg aggagtgcc tgggacctac 720
gaggacttcc gggcccagca gtgtgccaag cgcaactcct actatgtgca ccagaatgcc 780
aagcacagct ggggtgcccta cgagcctgac gatgacgccc agaagtgtga gctgatctgc 840
cagtcggcgg acacggggga cgtggtgttc atgaaccagg tggttcacga tgggacacgc 900
tgcagctacc gggaccata cagcgtctgt gcgcgtggcg agtgtgtgcc tgtcggctgt 960
gacaaggagg tggggtccat gaaggcggat gacaagtgtg gagtctgcgg gggtgacaac 1020
tcccactgca ggactgtgaa ggggacgctg ggcaaggcct ccaagcaggc aggagctctc 1080
aagctgggtgc agatcccagc aggtgccagg cacatccaga ttgaggcact ggagaagtcc 1140
ccccaccgca ttggtgagtg ctgggggtgct gggagggggac agcagggccc caggccctgc 1200
cctctgactt ggggggagctg ggagaccaga ggacaagatt ctagtacaag tggaattgta 1260
ctaactggag taatgggcag agacccccctt ttcattttat tttaaattta tgctgcatgg 1320
gtaacccatt ccatggttta catttttagaa ggtctcaaag gggacctagt aaagagtccc 1380
ctttctaccc ctgtaccctg ggggcggttt tcttcctaa gggcaactac tgттаataat 1440
ttcttgtgca catagatggc tgттаaaagga aagccatgtt cacagagtgt atcagtcagc 1500
ttttgtgccc taacacacca ctccaaaact tagtggcttc aaacaagaat aattcttagc 1560
tcacggtcct atgggtcatc agtttgggct gggctctgtg ggggtggttct tctacttadc 1620
ttcttggacc aagtcatgca gatgccctca gctggtaggt ctctgggagc tggttggtct 1680
aggatggcct cgctcatatg tctggtggtt ggtactggct gtcagctggg gtcatggagg 1740
tggcagggct gtgtcctcaa caggctaacc cagtgttatt cacattatat ctgtcacata 1800
gtcctcagga atggcttgtg tcatgttttc tagcgtccca ttagtccaaa tcacatggac 1860

aagcccagat ttaaggggta gaaacataga ctagctcttg atggtagaag tggatgaagtt 1920
actgtgcaaa gcagcatgca tagaggaata ggaggaatgt agaggcattc tgcagtctac 1980
cacacaggcc cttacattat tctcattata atcatactta aacaccaagc cactaaatga 2040
ggtgacaccc ttgtgcttgt aacagttatc taactatgaa gctaggctcg attaaaaatg 2100
agaataccac aataagttaa taaattttaaa ttaaggccat taatataata tgagtgatgt 2160
tttgtttcgt ttttgctgaa actaaattgg ctgtcaaaaa atggacatgt ccagagaggc 2220
aaatccacag acagagagag aatagatccg tggctgccag gggctgggga aggaaagagg 2280
catgacggct aatgggtatc aggtttcttt ttggggcgat gaaaatgttc tggaattaga 2340
cagtggcaat ggctgaatct acttaaaaaat cagggcaggc gcagcggctc acgcctgtaa 2400
tccaacact ttgggaggcc aaggtgggtg gatcgcttga gctcagaagt ttgagatcag 2460
cctggggaac atggtgaaat cccatctcta c 2491

<210> 1709

<211> 3622

<212> DNA

<213> Homo sapiens

<400> 1709

atgtgttgtg tatectctg ctttaccttc taccgtgagt caaagccccc tgaggcttcc 60
ccagaagcag atgctggagc tatgtttcct gtacagcctg cagaactgca gatggagtta 120
ttgccatggt gttaggacaa gctgattgtg ttaaagcatg tgacacacct aatttcagaa 180
accagagggg aaatcgccgc tcattaaagt tcaaggaaca tatectggag gcttagtgaa 240
accagctctc tcttcccatc aaatgagaag tctctgtgtc ttcaaatgaa agccaagaaa 300
gcacacccca gagtcgaata caacaaaaca tcaggcaatg cctttgaaga gcagttttct 360
ttgccaacca aggttcgggg atcgctctta gcttccagg acaaccagcc acggatcctg 420
tgggcaggag ggctgccaag gccagttgg aggtcaatt tatggcggcc tgggggaaga 480
agcatgcagg taaatacagc ccaaggggac ccagaagaag gtgcacgccc aagaggacgg 540
tctgtctgct ttctgcgctg ggggcacagg ggcagcccga ggccccaggc cccttcgtgg 600

ctctggagtc cattgtgcac gtgctaagat gcgccagggt ttcaaagcag gctcaagggc 660
cttaggcttc cccgtggaag gctccccctc atagcagggt tacagatgct ctgagagcag 720
ctcttctcca tgggtgcagt cctgacatcc aaggggtctg aactgtagta cgttgtttac 780
tggaacctga acccgaaggc ctccaaaaag tccctcgata aaatggtcag gaaccggtga 840
ttccatgtat agctctgctt taaagcttta attggcagag agccccccc cccaaaaaag 900
tctacaacta gtacatttct ccacaaaaaa tgtccacagc agcatcttcc tctaaaaaag 960
gtttgtcttt tacattttaa tgcaggaaag gatccagtcc gtgatgaatg tgaggaaaga 1020
aaccgtttta cagaaacaag ggaggaagat gtaactgatg agcatgggga aagagaacct 1080
tttgctgaaa cagatgaaca cacgggggct aataccaaga agccagaaga tactgcaggt 1140
atgttttagg agttatctgt agtttatgaa aattgttttc agtcatacaa ctgttgcagt 1200
aggttatatg aattagtgga cgacaagact gtcttaaagt gcttctcata tgtagcattt 1260
aacgtacgta ttaaatgtaa tctatttgat aaatttttct tacctttttg attgttgatg 1320
tggaatgtga gaatgcttct aataatgggtg aagcgagatg gatggctttt ctttcataca 1380
tgtggaaatt taattgtttg gaggatatta gaggacagtg gaggagaaac agctctattc 1440
gttcctttta gtatacacag attaatgcat atatcaatgg ttttttttag cttttacttt 1500
aagtttgggg gtacatgtgg aggtttgtta tgtagataaa ttgcatgtca cagggttttg 1560
gtatacagat tttttgtca cccagtttat aagcatagta cctgatgggt ggtctttgat 1620
cctcaccctc ctctaccct ccaccctcaa gtaggcccag ttgtctgttg ttcctctctt 1680
cctgtccgtc tgtactcaga gtttttaata tgagttttct atgttcctaa ttagctgtt 1740
ctattgtcac agctttctga ttttgtttct tttaaagtac aagagaaaat tgaattttct 1800
aaaatcattt tctattatta ttccagtaat aaactgtgta gtagaaaagt aaggacaact 1860
tttctaccta gtgagaaaca tgtaattggc tccaaaaact cataaacttt atattgctgt 1920
gtgaaatatt agttactctc ttataggacc atattttcaa aaaagtttga gaaaatttct 1980
gtagagatga tggagacaat actcttattt ttaaaaagct caattcagtt ttcagctctt 2040
ctctagcgat gattcataca agcagtatat ttggaaagct tgggtgacaaa gtgctggttt 2100
tgtgagctgc ctaatacatt gggcattata gatggagact gtatgtaaaa aatatttgca 2160
ttgtggtaca aatcttttat gattgctgaa aattattctt agcaattgat ggtagagctc 2220
tgatgtgaaa tcatgttttag gaaagcattc cttgcagtat tacagtttct tgaacacag 2280
cactatgggt acaaagtca taaaaagctc caagaaaaca tttcaaagt gtttttggat 2340

gtatttcttt acctaaacct aaatttttat actcatggcc attgcttctt ttattaaaat 2400
acagttaata gcatcaatca ctagattgct taaaaatgct tttcttattg tgcattaagt 2460
tatttctacc cttttgaggg ttctattata taagatactt ttttgtgtgc tttacgtaat 2520
gaattgtgca gtatttcatg gaagcatctc ctttgaattg taggacattt tataaatgta 2580
gaaattaaag tctgtgctta taactctttc tgcacattta aaaaatagag acttttaatt 2640
atttgccttt tttcatcatc tgtcaattaa gtgattttca gttataccaa ctggaattga 2700
aatgcgaatg ttaataacctg aaaggtttta cagaaaataa gtgagtaaatt cttgcctttt 2760
gaaatgatct ttgcatttta ttttttaagt atccttctga aattgctgaa ccataaagtc 2820
ccatattgat gtcagtatat gcaaagaaac tacttttcaa cattaacttt taatccattt 2880
tcatttacta tctaactgac attaaagagg atcttactgc aaaaagaaaa aggatgaaaa 2940
tggataaaac ttgcagcaaa acaaagaaca aaagtaaaca tgctttgaga aaaaagcaac 3000
ttaaaaggca gaaacgtgat tatatacatt ctctgaagtt gctaaatgtc cttgaagaat 3060
acatcacaga cgagcagaaa gaggaagaag aagaagaggg agaagaggaa gaactaatta 3120
gaatatttca agaacaacag aagaagtggc aacaatatag aagtgttagg agagagaggc 3180
tgaaagagat gaagctgcta cgtgaccaat tcgtaaaggc tcttgaggac tttgaagacc 3240
tttgtgacag agttttttcc gatgaagaca gtgaacttga taactagaca tgttttttaa 3300
taaaatcatg tcagaactct tttggaaaag ttggcactta cccagttgtc tcttcaacct 3360
ctgttattct gatgactgaa gaaagaactt gaacctatgt tatatgatac aagcacaact 3420
tgagctacag taaactacat gacagtgttt tgataattgt tgtataaatc ggtatagctc 3480
ctctgtcact cgtctgttaa atgccagacc tcgtttctat gatctgttga atgaatccta 3540
gacacttctg tgagaaagca gggattgcat agttatgtac acggtcaatt aaattttaac 3600
attaaagata atttagattt cg 3622

<210> 1710

<211> 2758

<212> DNA

<213> Homo sapiens

<400> 1710

gttttagtaga gacggtgttt ctccatgttg gtcaggctgg tctcgaactc ctgacctcag	60
ctgatccgcc tgccttggcc tcccaaagtt ctgggattat aggtgtgagc cactgcaccc	120
agccacctgt tccttttact gtcccttttg tagtgccctc aacatatgac ctgtacttaa	180
ggtgttgtga ggtctggatg tatatatattc agcagtcctt gaacaccagc tctactgtca	240
catcagatct ctctgggtct ggacacagtc ttctacacat tggtcaccag aagctatggc	300
ctgttgaaag ccattcactg aggagtaact tggggactcc acttctgtgc tctgcactgt	360
accactccct atgttgttcc ccatcatcag gactctctcg ttatgggttt ctgtcagtcc	420
cggttctgcc cagtaggctt tcctctcact ggctttaatg tcccatgcct gtcaccaatc	480
ccatggtctt atttgtgagt tggcttgaca gacatttggt atggggctgc ctcttcctc	540
caaagtcac atgcacttca tgagcatttc tgtttttaggt tggtggcatg gagccaagga	600
tgaggaggca cctccaagc aatgtgtttc tgtaggagtg tcacaggcca caactttaaa	660
gccagctttg tccaccaga aggccagcc ctgtgagaca tgtagctcac ttctgaagga	720
cattctacac ctggctgagc atgacggaac acacccaag cgtacagcca agctttacct	780
gcacaaaag gagcatctta gagagaagct caccagaagt gatgaaggga ggccttcgtt	840
tgtgaatgac agtggtcacc tggcaaagag gaacctcaca tgcatgcagg gtggcaagga	900
ttttactggt gattcagatc ttcaacaaca ggctcttcac agtgggtgga agccacacag	960
ggacactcat ggtgtggagg cttttcaaag tggacagaat aattacagct gcacccaatg	1020
tgggaaagac ttttgccacc aacatacact gtttgagcac cagaaaatcc acacagagga	1080
aaggccttat gagtgcagtg aatgtggcaa attgtttagg tacaactccg acctattaa	1140
acatcagcga aatcatactg gagaaaggcc ttataagtgt agtgaatgtg gaaaagcctt	1200
cagcctcaaa tacaatgttg ttcaacacca gaaaattcac actggagaaa ggccttatga	1260
gtgcagtga tgtgggaaag cttttcttag aaagtctcac ctacttcagc accagaggat	1320
tcacaccagg ccaaggcctt atgtgtgtag tgaatgtggg aaggccttcc ttacacaggc	1380
tcaccttggt ggtcaccaga aaattcatac tggagaacgg ccttatggat gcaatgaatg	1440
tgggaaatac tttatgtaca gttcagcact cattagacat cagaaagttc acactggaga	1500
aaggcctttt tattgctgtg aatgtgggaa attctttatg gacagctgca cactcattat	1560
tcaccagaga gttcatactg gagaaaaacc ttatgaatgc aacgaatgtg ggaaattctt	1620
tagataccgt tccacactca ttagacatca gaaagttcac actggagaaa agccttatga	1680

gtgtagtgaa tgtgggaagt tctttatgga cacttccaca ctcattattc atcagagagt 1740
tcatactgga gaaaagcctt atgaatgcaa caaatgtggg aaatttctta ggtattgctt 1800
cacactgaat agacatcaga gagttcactc tggagagagg ccttatgaat gcagtgaatg 1860
tggcaaattc tttgtggaca gctgtacact gaagagtcac cagagagttc aactggaga 1920
aagacctttt gaatgcagca tttgtgggaa atcctttaga tgtcgtcca cacttgatac 1980
acatcagaga attcacactg gtgaaaggcc ttatgagtgt agtgaatgtg ggaaattctt 2040
taggcacaac tcaaatacata ttagacatcg gagaaatcac tttggagaag ggtcttttga 2100
gtgcactgag tgtgggagag tttttagcca aaattccac ctcattcggc accaaaaagt 2160
tcacactagg gaaagaactt acaaatgcag caaatgtggg aaatttttta tggacagctc 2220
cacactcatt agtcatgaga gagttcatac tggagaaaag ccttatgagt gcagtgaatg 2280
tgggaaagtc tttagataca actccagcct cattaacat cggagaattc aactggaga 2340
gagaccttat cagtgcagtg aatgtggaag agtctttaac caaaattctc atctcattca 2400
gcaccagaaa gttcacacca gataaagaat gtatatataa agcagatggg gaaagacttc 2460
acacagaaat ctactctgat ttagcactgg gacctacgtt ttaaaaaaag tattcttgta 2520
gaatacagat aacataaaat ctaacatctt aaccatgtta aagtgtatag ttcagtaccg 2580
ttaagtcatt cacattgtgc aatgaatata tagaagtctt ttcaacttat gaaactaagt 2640
ctataccttt taaaacctta ttctcactc catccagcct cttgacaagc accgctctgt 2700
atgaatttta ctagtccggg tacctcatat aagaaaactt aagttttggt caaaaaag 2758

<210> 1711

<211> 1955

<212> DNA

<213> Homo sapiens

<400> 1711

agacgccgcg cggggcgggg attggtctgt ggtcctctct cggctcctcg cggctcgcg 60
cggccgacgg ttcttgggac acctgcttgc ttggcccgtc cggcggctca gggcttctct 120
gctgcgctcc cggttcgctg gacgggaaga agggctgggc cgtcccgtcc cgtccccatc 180

ggaaccccaa gtcgcgccgc tgaccgctcg cagggcgaga tgagcgcgga cgcagcggcc 240
ggggcgcccc tgccccggct ctgctgcctg gagaagggtc cgaacggcta cggttccac 300
ctgcacgggg agaaggga gttgggccga gaaggcgggg ctgctggcgg gggaccggct 360
ggtggaggtg aacggcgaaa acgtggagaa ggagaccac cagcaggtgg tgagccgcat 420
ccgcgccgca ctcaacgccg tgcgcctgct ggtggctgac cccgagacgg acgagcagct 480
gcagaagctc ggcgctccagg tccgagagga gctgctgcgc gccaggaag cgccggggca 540
ggccgagccg ccggccgccg ccgaggtgca gggggctggc aacgaaaatg agcctcgcga 600
ggccgacaag agccaccgg agcagcgcga gcttcggcct cggtctgtga ccatgaagaa 660
gggccccagt ggctatggct tcaacctgca cagcgacaag tccaagccag gccagttcat 720
ccggtcagtg gaccagact ccccggtga ggcttcaggg ctccgggccc aggatcgcat 780
tgtggaggtg aacggggtct gcatggagg gaagcagcat ggggacgtgg tgtccgcat 840
cagggtggc ggggacgaga ccaagctgct ggtgggtggac agggaaactg acgagttctt 900
caagaaatgc agagtgatcc catctcagga gcacctgaat ggtcccctgc ctgtgccctt 960
caccaatggg gagatacaga aggagaacag tcgtgaagcc ctggcagagg cagccttgga 1020
gagccccagg ccagccctgg tgagatccgc ctccagtac accagcgagg agctgaattc 1080
ccaagacagc cccccaaaac aggactccac agcgccctcg tctacctct cctccgacct 1140
catcctagac ttcaacatct ccctggccat ggccaaagag agggccccacc agaaacgcag 1200
cagcaaacgg gccccgcaga tggactggag caagaaaaac gaactcttca gcaacctctg 1260
agcgccctgc tgtcaccag tgactggcag ggccgagcca gcattccacc ccaccttttt 1320
ccttctcccc aattactccc ctgaatcaat gtacaaatca gcaccacat cccctttctt 1380
gacaaatgat ttttctagag aactatgttc ttccctgact ttagggaagg tgaatgtgtt 1440
cccgctctcc cgcagtcaga aaggagactc tgccctccctc ctctcactg agtgcctcat 1500
cctaccgggt gtccctttgc caccctgcct gggacatcgc tggaacctgc accatgccag 1560
gatcatggga ccaggcgaga gggcacctc ccttctccc ccatgtgata aatgggtcca 1620
gggctgatca aagaactctg actgcagaac tgccgctctc agtggacagg gcatctgtta 1680
ccctgagacc tgtggcagac acgtcttggt ttcatatgat ttttgtaag agtgcagtat 1740
tgcagagtct agaggaattt ttgtttcctt gattaacatg attttcctgg ttgttacatc 1800
cagggcagtg cagtggcctc agccttaaac tttgttccct actcccacc tcagcgaact 1860
gggcagcacg gggagggttt ggctaccct gccatccct gagccaggta ccaccattgt 1920

aaggaaacac tttcagaaat tcagctggtt cctcc

1955

<210> 1712

<211> 2467

<212> DNA

<213> Homo sapiens

<400> 1712

aacacaaatt acctgctctc ccagtgatca gtcacgtgca aaaagctttg tccaattctt 60
tgaaaagggtg agattttttt ttttcttttt gcgggtttttg aagtttggtt gaatttagaa 120
attcgaagga ataaactaag agcctgaatt aaatgttttg aaatatacat acataaaaca 180
aaagacacta gtatttcttt cactttttatc aatacgcata gagaaggaag cagagtatgt 240
gtttccaaaa cgtgacttgg aaagctgtaa gacctctatg tcttgttgtt gttgttgttg 300
ttgttgtaa cagaagtaaa ttttttcaga cccaccacca cagaagtggc cagactccca 360
aaccagcatt tccagctact ggctggctgg tgtacaccag gccaattctt tatgagaata 420
tattaaaagt caccctgtg gattcctaca aagtacttcc ccttgcgggg aggggagagg 480
cttactgtcc ctttggtctt gagaccagca cagttgtaga taatatcctg aaaaggttat 540
tattaaattc tttcgcgtaa tgccccctta caaatattgt taaacattaa tttacagaag 600
aacttaaadc ttaatttcaa ggggtggcata agactatcgc tttgaaattg tatctttcgc 660
aagttaaaaa aaaaaataa caaagccatt cgctgatgct acagaataaa agaaaggag 720
gctgctaagg taatttcagc ctggtagaat tcacattgca tgcattgtgc ataaagttcc 780
atgctatcca gataagacta ttcactgaat ctttttagact agaattctaga ccaataaaat 840
gcatttttagt ttgtatggaa tgtcctagct tcctagaggc tagggttcga cgtcttgttt 900
gtcaagacat aaagggatta atgacatacc cactgtgtgc tagaccacag agtgggcaca 960
gagggatgaa aaaataaaaa ttcttgcctt tgaggagctc acagtctaag ctgtcaataa 1020
taacatctaa catttattaa atactatgat ctaggcactg aactaaaagc tttatgtcaa 1080
ctcagttaat actgccaaca actctttgac atcactggaa attccatatg ctgaattcac 1140
acggaattaa gtggaaatct acaaagtagc cagtctactg gttctgtagt ggtcaaccta 1200

ttaaaaatgg tttttaattt ctaaagtact ttatgccaaa tataacatgt ttatggtata 1260
tgcctgactg tagaattata actcagggga ataacgactt atttaaagt aacagatcta 1320
ttcatagtct gtaaagaaca attcatcctc tgattttgtt tttcagatta agcagtgtgt 1380
ttattaaaaa ttattatcat cgcaatacta aaaagatctt tagattgctg ctaatctgat 1440
tctgcatttt aactgcctta aattctacat tcacttgcaa gtgggggcca cagtcaggtt 1500
ggcaacaagt tttgcagaca aaaggaaatc ctggttgtaa atcccatgat atattgtact 1560
caattttgta tgatactgtc taatgtgctg tgctgcctta ttaaagaact cgatgtccat 1620
ttggtttaca ttagagggaa acttaactgc agcttaacat attgttcatt ttcaacactg 1680
tcacgttaca ttcgtggggg gcagatttta atttctttat cagtaatcaa ctggaagttt 1740
ctttttgtta aattaaagca agaaaggttt taaaataaag ggcatggggg taggacgcca 1800
ccttttggtg ataaaacaaa tagaaatccc ttctgaaaac agatgttcct gacataattt 1860
tatttttaat tacaccaagg caaagggtgt tgtccccatt tcgttatatt ttaagtaaca 1920
ggagaaaaaa aaaaccaatg taaatgcaaa attagcaaat tatagttaac tgcagccaaa 1980
attttcccaa acgtatcaga atatgttagt cccctgtcac attactgttg attgtataca 2040
ccaaacatga gcttcattca ccaaatacca tgtcactaaa tatatgtaca tttggggaac 2100
agaaactgga gtggacattt accacctgac gacgtacctg aatgctcttg taagttttga 2160
gttgaacaaa aactaaaacc acttaattta gtgtttcttt aaccacagtt actggtgtcc 2220
tgatttttgc catatctata tgacataaca gttcccgaat aattaatata ccatactcat 2280
tggaggccac ttattatggt aattgtagca aacattttca tttaaataca ctttctttta 2340
atttttttct attactgcct taaatgggaa atcagtatca cccaccataa attaaaaaca 2400
agcacagtaa aaacaaagtc actgatttct ctttgagggt caaaacaaaa attaaaaatg 2460
atttttg 2467

<210> 1713

<211> 1550

<212> DNA

<213> Homo sapiens

<400> 1713

agcgagtgcg cgctcctcct cgccccgcgc taggtccatc ccggcccagc caccatgtcc	60
atccacttca gctccccggt attcacctcg cgctcagccg ccttctcggg ccgcggcgcc	120
caggtgcgcc tgagctccgc tcgccccggc ggccittggca gcagcagcct ctacggcctc	180
ggcgccctgc ggccgcgcgt ggccccgctg cggctggacg ccgaccctc cctccagcgg	240
gtgcgccagg aggagagcga gcagatcaag accctcaaca acaagtttgc ctccttcac	300
gacaaggtgc ggtttctgga gcagcagaac aagctgctgg agaccaagtg gacgctgctg	360
caggagcaga agtcggccaa gagcagccgc ctcccagaca tctttgaggc ccagattgct	420
ggccttcggg gtcagcttga ggcactgcag gtggatgggg gccgcctgga ggcgagctg	480
cggagcatgc aggatgtggt ggaggacttc aagaataggt acgaagatga aattaaccgc	540
cgcacagctg ctgagaatga gtttgtggtg ctgaagaagg atgtggatgc tgcctacatg	600
agcaaggtgg agctggaggc caaggtggat gccctgaatg atgagatcaa cttcctcagg	660
accctcaatg agacggagt t gacagagctg cagtcccaga tctccgacac atctgtggtg	720
ctgtccatga acaacagtcg ctccctggac ctggacggca tcatcgctga ggtcaaggca	780
cagtatgagg agatggccaa atgcagccgg gctgaggctg aagcctggta ccagaccaag	840
tttgagaccc tccaggccca ggctgggaag catggggacg acctccggaa taccggaat	900
gagatttcag agatgaaccg ggccatccag aggctgcagg ctgagatcga caacatcaag	960
aaccagcgtg ccaagttgga ggccgccatt gccgaggctg aggagcgtgg ggagctggcg	1020
ctcaaggatg ctctgtccaa gcaggaggag ctggaagccg ccctgcagcg ggccaagcag	1080
gatatggcac ggagctgcg tgagtaccag gaactcatga gcgtgaagct ggccctggac	1140
atcgagatcg ccacctaccg caagctgctg gagggcgagg agagccggtt ggctggagat	1200
ggagtgggag ccgtgaatat ctctgtgatg aattccactg gtggcagtag cagtggcggt	1260
ggcattgggc tgaccctcgg gggaaccatg ggcagcaatg ccctgagctt ctccagcagt	1320
gcgggtcctg ggctcctgaa ggcttattcc atccggaccg catccgccag tcgcaggagt	1380
gccccgcact gagccgcctc ccaccactcc actcctccag ccaccacca caatcacaag	1440
aagattccca cccctgcctc ccatgcctgg tcccaagaca gtgagacagt ctggaaagtg	1500
atgtcagaat agcttccaat aaagcagcct cattctgagg cctgagtgat	1550

<210> 1714

<211> 1602

<212> DNA

<213> Homo sapiens

<400> 1714

```
agctctggga gaggagccca gcactgggat tccgaggtgt ttccattcag tgatctgcac    60
tgaacacaga ggactcgcca tggagttggg gctgagctgg gttttccttg ttgctatatt    120
aaaagggtgc cagtgtgagg tgcagctggg ggagtcgggg ggaggcttgg tccagcccgg    180
gggggtcccgg agactctcct gtgcagcctc tgcattcacc gtcagcaaca attacgtgag    240
ctgggtccgc caggctccag ggaaggggct ggagtgggtc tcaatcattt atagcgctgg    300
tgacacatac tacgcagact ccgtgaaggg cagattcacc atctccagag acaactccaa    360
gaacactctg catcttcaaa tgaacagcct gagagccgac gacacggcta tttattactg    420
tgcgagaatg ggggggtggtt tcctcgggaa tgcttttgag atctggggcc aagggaacatt    480
gatgaccgtc tcttcagcat ccccgaccag ccccaaggtc ttcccgtga gcctctgcag    540
caccagcca gatgggaacg tggatcatgc ctgcctggtc cagggttct tccccagga    600
gccactcagt gtgacctgga gcgaaagcgg acagggcgtg accgccagaa acttcccacc    660
cagccaggat gcctccgggg acctgtacac cagagcagc cagctgacce tgccggccac    720
acagtgccta gccggcaagt ccgtgacatg ccacgtgaag cactacacga atcccagcca    780
ggatgtgact gtgccctgcc cagttccctc aactccacct accccatctc cctcaactcc    840
acctaccca tctccctcat gctgccaccc ccgactgtca ctgcaccgac cggccctega    900
ggacctgtc ttaggttcag aagcgaacct cacgtgcaca ctgaccggcc tgagagatgc    960
ctcaggtgtc accttcacct ggacgccctc aagtgggaag agcgtgttc aaggaccacc   1020
tgagcgtgac ctctgtggct gctacagcgt gtccagtgtc ctgccgggct gtgccgagcc   1080
atggaaccat gggaagacct tcaattgcac tgctgcctac cccgagtcca agaccccgtc   1140
aaccgccacc ctctcaaaat ccggaacac attccggccc gaggtccacc tgctgccgcc   1200
gccgtcggag gagctggccc tgaacgagct ggtgacgctg acgtgcctgg cacgcggctt   1260
cagccccaag gacgtgctgg ttcgctggct gcaggggtca caggagctgc cccgcgagaa   1320
gtacctgact tgggcatccc ggcaggagcc cagccagggc accaccacct tcgctgtgac   1380
```

cagcatactg cgcgtggcag ccgaggactg gaagaagggg gacaccttct cctgcatggt 1440
 gggccacgag gccctgccgc tggccttcac acagaagacc atcgaccgct tggcgggtaa 1500
 acccaccat gtcaatgtgt ctgttgtcat ggcggagggtg gacggcacct gctactgagc 1560
 cgcccgctg tccccacccc tgaataaact ccatgctccc cc 1602

<210> 1715

<211> 1640

<212> DNA

<213> Homo sapiens

<400> 1715

agctctggga gacgagccca gcaactggaag tcgccggtgt ttccattcgg tgatcatcac 60
 tgaacacaga ggactcacca tggagtttgg gctgagctgg gttttcctcg ttgctctttt 120
 tagagggtgc cagtgtcagg tgcaactggt gcaatctggg ggaggcgtag tccagcctgg 180
 aaggtccctg acactctcct gtgcagcctc tggattcatg ttcagtgggt atgccttcca 240
 ctgggtccgc caggctccag gcctgggact ggagtggtg gcagtcgttt caaaagacgg 300
 aggtaagaaa gagtatgcag actccgtgaa gggccgattc accttgtcca gatatacac 360
 caacaacacg gtgtctttgc aaatggacag cctgagactt gacgacacgg ctgtctatta 420
 ttgtgcgaga gccccccagg aatacgaatt tgggagggga tatcacagca acaggaacgg 480
 tttggacgtc tggggccaag ggaccacggt caccgtctcc tcagcctcca ccaagggcc 540
 atcggctctc cccctggcgc cctgctccag gagcacctcc gagagcacag cggccctggg 600
 ctgcctggtc aaggactact tccccgaacc ggtgacggtg tcgtggaact caggcgcct 660
 gaccagcggc gtgcacacct tcccggctgt cctacagtcc tcaggactct actccctcag 720
 cagcgtggtg accgtgccct ccagcagctt gggcacgaag acctacacct gcaatgtaga 780
 tcacaagccc agcaacacca aggtggacaa gagagttgag tccaaatatg gtcccccggtg 840
 cccatcatgc ccagcacctg aattcctggg gggaccatca gtcttctgt tcccccaaa 900
 accaaggac accctcatga tctcccggac ccctgaggtc acgtgcgtgg tggtggacgt 960
 gagccaggaa gaccccagg tccagttcaa ctggtacgtg gatggcgtgg aggtgcataa 1020

tgccaagaca aagccgcggg aggagcagtt caacagcacg taccgtgtgg tcagcgtcct 1080
 caccgtcgtg caccaggact ggctgaacgg caaggagtac aagtgaagg tctccaacaa 1140
 aggccctcccg tcttccatcg agaaaacat ctccaaagcc aaagggcagc cccgagagcc 1200
 acaggtgtac accctgcccc catcccagga ggagatgacc aagaaccagg tcagcctgac 1260
 ctgcctggtc aaaggcttct accccagcga catcgccgtg gagtgggaga gcaatgggca 1320
 gccggagaac aactacaaga ccacgcctcc cgtgctggac tccgacggct ctttcttct 1380
 ctacagcagg ctaaccgtgg acaagagcag gtggcaggag gggaatgtct tctcatgctc 1440
 cgtgatgcat gaggtctctg acaaccacta cacgcagaag agcctctccc tgtctctggg 1500
 taaatgagtg ccagggccgg caagcccccg ctccccgggc tctcggggtc gcgcgaggat 1560
 gcttggcacg taccctgtgt acatacttcc cgggcgcccc gcattggaaat aaagcaccca 1620
 gcgctgccct gggccccctgc 1640

<210> 1716

<211> 1666

<212> DNA

<213> Homo sapiens

<400> 1716

gcattgatgg taggtcctgc tgtgcctggt ccctggctgg tagagtgagg atgagggcag 60
 ggaagggaaa acaccaaca aaggtttgct tttgttgttg aaatcaagcc agttaccctg 120
 tgggaagtga agcttgctcc caccatagaa ctctgggcaa tgatgtaaag cacacacctc 180
 acctcagata tgtctcacag caggggccgg ggaactggga tatttgtaca ccagttccca 240
 tcagccacca gctgctgctg ctctgcgca ctgattccgc agcacttctg gctggtgggc 300
 aaagcaggca ggaaaaggca tacggatatg ggggggttggg agttcacctt gtgggaaggg 360
 cagagggaga ggcgccagac actaagagcc agggctgtac acagggaccc ttcaggtcaa 420
 cagctcttta ttaaacacct gctgcctgct ctaggccaga tcctagagac gcagggtgag 480
 caagacccat ctctgtccct gagctcttgg ttggttggga ggtggccctt aaccagatca 540
 tcagcacaca tggttaaggag tgtgtgacgg aggggaagggc agtggcctgg gagcaggatg 600

aaggatgggg ctggcagggc aggagaccag atctgaacag agcctggagg gtcttagtca 660
aggagggcag aagaaggcat acagagtggg gccagggtgag tcaaagcctg aggctcgggg 720
aggggctggg gagcacggag cccgcccta gcctgctggc aagagctgta ggaatcatgt 780
ccggagtagg gaacagggct gagtctgggc ctgttagcct caaagcacat aaggcacata 840
agggccaggc tgggcttttc ctggagccct tgccgctctg tggctctcag tctggggcct 900
taagcctgac ccagggcctt ctcccaggct ctgtccctgg gctcattaag cctggttgtt 960
ccagaagctc agtaccacac caggcagctc ctgcctgcac tgatgcccct agaaaccagc 1020
cctcccgcgc gcccccgtc acatggacag tgggtgctact gatcactgtg accagaactg 1080
accacagga cacgaggagc taacatggta gagctgtcac agttgggcag tgggtgttact 1140
gcccctcgag ggagtgaat agcaggcctg tggctccctg ccaagctgcg cgcatggtag 1200
accgggctgc acaggaaagg aaagaccctg ccatttatga agccctgtgg aggggtgctgg 1260
gcacagtctt ctcatccat cctttaaggc aggtataatc aggcccattt cacagaagag 1320
gaaacagagg ccagaaagg aaaagtgact tgcccacggt cacagagctc ataagcaggg 1380
gagctgggaa ttgcagcctg gggtttgtct gattccaaat ccggggctct ttacctccc 1440
acttggtaat aaagggtgct ggtgctgcat tctgcttctg ttcttggtt cttctccat 1500
agagcagagt ggtagaacac ataacctccc tgtgcctcag tttcctcatc tgtcaaggat 1560
ggtgacaggg gcaggtatgc agaggcacag cacagacgac gccaccatgc tacctgcttg 1620
ctgattaatg atagggtgtc caagccaaaa aataaaacta aacatt 1666

<210> 1717

<211> 1264

<212> DNA

<213> Homo sapiens

<400> 1717

cggccgcggt cagaggggtg aacagggaga cgctgaccag gggcaaggag ccggctgagc 60
tctcctcctc gccctcttcg tccaggcctc ggtegggtcct gtcgtccctg ctgggcaggc 120
tgagccctgc aaggagggat ttcagcatca ccaggctact gttgtcgaag gacaggctgt 180

ggagcgggtc ggcgtgcttc tgcaggaagg agatggctgc tggggcattg taggtaatgt 240
 acttatggat gaactgcaca aacttggtga tgaaggcagc cagatggcgg gaggacttcc 300
 tgtaattcag cagcaggcgg atgaaggaca gaaggcagtc ccacagcgcc ccctgggtgct 360
 cgctgcggaa cacgtgcggc tgcagcagct ccagcaggcc cagcacgtgc aggaagcagc 420
 tcagggtggtt ctgctgccgg aactcctgga agttgagggtg ggtgcggccg tgcaggagcg 480
 ccgcgatcat gggcagggtc ctgagcagca gcagcgggtg cgccaccgcc agcttccggc 540
 aggccatgct ggcatccgcc cctcggttct ccaacgcccg ggagtcgctg gtgtccgcaa 600
 ggagcgtgat gaagcgggtg atgagtccgt ccagcttgca gacgtgctg ctggcagccc 660
 cttcgctgtg cagtaggacc tcaggcacgg gcacccgcag ctccggccgc tgtaggtaga 720
 gctgcaggag aaggtctcgg cagcgctgc ccagcacgct gtcctccac tgctggatgc 780
 agcctgacag gtgctccgtc accttctga cactctcatc gtcccccac cagcagctga 840
 gcagcagggg cagccgggcc tggatgaggc tgcaggcggc tgtgtccccg tcctggctcc 900
 gcgtctccgc ctcggccagg atcagctcca ccaggctgat gagctccggg ccctggaccc 960
 gcagcaccag ctctcccg cgttctgctg ggggtgcgctg gtcccgcccc tgccagatgc 1020
 gaggaacatg gatgcaggcc cagaggaagt ccagagaggc agaggggtcg aacctctgtt 1080
 cccggctctt gccagcagg actcggatgc actggtgcag tgtgggccag ctggactgat 1140
 gcgtgaagag ggtcaggagg tagggacgga acgaggcac ctgggcctga cttttgcct 1200
 tcctccggga gaagagcagc ctgagctgca ggtcggggca gctgctgacc acctcggggt 1260
 ccag 1264

<210> 1718

<211> 2750

<212> DNA

<213> Homo sapiens

<400> 1718

actaccaac tctgccctta tagagcaaac acaactacag acattaaaac cagtgagtat 60
 ggctgtgtcc caatacactt catttccaaa aacaggcagt ggggcctgac ttggcctgag 120

gaccacagtt tgccagctcc tggcttaaga tatcatgaat atcttgggat acagagtatc 180
aggaataagt ttttccctgc tgtttcttaa tggtttattg agttgtcagc ccaatatcta 240
ctatatagct aactcctccc tggatatgtga tgagtatagt aggcctgcct tcataccagg 300
acttcagaaa atgtttgatg atgctgtaga aatatctgcc ctaggccggg tgcagtggct 360
tacacctgtg gtctcagcac tttgggaggc caagggaggt ggatcacctg aggtcaggag 420
ttcgagaccg gtgtggccag tgtggcgga ccccgctctc actaaaggta caaaaagttg 480
gctgggtgtg gtggcggtg cctgtggtcc cagctgcttg ggaggctgag gcgggggagc 540
tgcttgagcc tggggggtgg aggttgcagt gggccaggat tgcgccattg cgctccggcc 600
tgggtgacag agtgagactc tgtctcaaaa aaaaaaaaaa aaaaaaaaaa aagaaagaaa 660
aagaaagaaa agaaaaagaa aagaaatata tgctctattc cacagcagaa gggttgacca 720
ctttgatcta atctgtttcc ttttcatag gaaaccaga agttctgtga acaagtccat 780
gctgccatca aggcatttat tgcagtgtac tatttgcttc caaaggatca gggtaagcca 840
cataagtgtt gcatttatcg tgtagatctt tgctaataatt gtggattatg tcttgtgact 900
tttaccttta cccaacttga acatgtaact ttctcccata aaatacagtg aaggataatt 960
ttgtaatgta agtgacttat ataaacaagc cattattcta agatacagat gctttgttcc 1020
tatgacttcc catctcccct gccttgccctg actcataagg cttttaattc tcacagcctt 1080
ctccctcttc aaccgtttt aacaccacag atactggctg gctctcagcc ccatatgcag 1140
gctcaggcca tccttacttt cctccacca tgttatatct caccctattt ctgaacatct 1200
gcataggtta aatggcctcc agccctgcct gtagaatcat gcattgatta taatcatgcc 1260
aaaattataa ctgaatacat gtcattgata ttcagggtta ctcaagtggc ttaaacttca 1320
agtgtttcat ctacagttgt taagagatca cggctcctaa tgaatgaata catgggtgtca 1380
cggaaagatt ttgttccaaa tctcttttga agaaaacact aaggaatggc aggaggggca 1440
agaaaatgcc atggggatat aagtaagacc tgagttttgt gttagcatgt aggttaaagc 1500
atgtgggtgt acattacctt atagtcttgt aatgcttaga ctcaggaaag cagatggtgc 1560
ttctgaaaag aacaccaggt tgcttattct ttgggtttgg ccacagggat caccctgaga 1620
aagctggtag ggggcgccac cctggacatc gtggatggca tggctcagct catggaagta 1680
ctttccgtca ctccaactca gagccctgag aacaatgacc ttatttccta caacagtgtc 1740
tgggttgcgt gccagcagat gcctcagata ccaagagata acaaagctgc agctcttttg 1800
atgctgacca agaattgtga ttttgtgaag gatgcacatg aagaaatgga gcaggctgtg 1860

gaagaatgtg acccttactc tggcctcttg aatgatactg aggagaacaa ctctgacaac 1920
 cacaatcatg aggatgatgt gttggggttt cccagcaatc aggacttgta ttggtcagag 1980
 gacgatcaag agctcataat cccatgcctt gcgctgggtga gagcatccaa agcctgcctg 2040
 aagaaaattc ggatgttagt ggcagagaat gggaggaagg atcaggtggc acagctggat 2100
 gacattgtgg atatttctga tgaaatcagc cctagtgtgg atgatttggc tctgagcata 2160
 tatccaccta tgtgtcacct gaccgtgcga atcaatgtaa gtactggcct tgagggaata 2220
 gctacagaac aaatgggcag aatttcacta atcactagta tttcctgtaa gctatagggt 2280
 acatatttat tagtcacatt tggatggaag tacaacagta atgtcacagt tcttgcacgc 2340
 gtttgggggt gataaatatt cactgaagtt gaattataat agccatgagc tttggtagtt 2400
 ctctcttcca taatcacctg ggtaatcatt cagaaaagcc caaaggcctt agaaaatgat 2460
 gctttaaggc tgggcgcggt agctcacacc tgtaatccca gcactccagg aggcggaggt 2520
 caggagttaga gaccagcctg gccaacatgg cgaaaccttg tctctactaa gaatacaaaa 2580
 attagccggg catcatgcac ctataatccc agctacttgg aaggcttaag caggagaatc 2640
 gcttgaagcc gggaagtgga ggttgcagtg agccgacatc gcgccactgc actccagcct 2700
 gagcaacaga gcaagactct gtctcaaaaa aaaaaaaaaa aaaaaaaaaa 2750

<210> 1719

<211> 2011

<212> DNA

<213> Homo sapiens

<400> 1719

acaaatatct tagttgcttg ctttttactt tattacaggg tgtttttttt ttttttagtg 60
 agcagacatt cttaatttta ttatagacct atttatagtt gttttccttt atagtttagtg 120
 gttttatatg tgtgtgtatt atgtagttat gtttaagaaa tctttgtca tgaggtttta 180
 tttcattttt gtattttttt ctggactcag tattagatat gttacttgat tctaaaaaaa 240
 tccatcttcc taccctccc ctattttctc tctctccaga gtgggtatta aggacattgc 300
 tggatatccat ttgccaacaa atgtgaaatt tcagagtccg gcttattctt ctgtagatac 360

tgaagaaaca attgaacctt atacaactga aaagatgagt cgagttcctg gaggatattt 420
 ggctttgaca gagggtttt aaattatgac agtagatttc aacaaccttc aggaattaaa 480
 aagtcttgca actaaaaagc ctgataagat tggatttcct gttattaaag aaggcatact 540
 agatgctatt atgggtttgt ttgtgctcca gcttgatgat gaacatagtt tatccacaag 600
 tcctagttag gaaacatgtt gggaacaggc tgtctacccc gtacaggacc ttgcagacta 660
 ctggataaag cctggagacc atgtgatgat ggaagtatct tgtcaagact gttacttaag 720
 aatccagagt attagtgtct tgggttttga atgtgaaatg gatgttgcaa aaagttttac 780
 ccagaataaa gacttggtat cgttaggaaa tgaggctgaa cttttagtagt ccctcgctaa 840
 ccttcagacc agtaaaccag atgctgtaga gcagacatgt atattggaat ctacagaaat 900
 tgctttgctt aacaacatcc catatcatga aggcttttaa atggcaatga gcaaagtttt 960
 gtcttcactg actccagaga aactgtatca gaccatggat actcactgtc agaatgagat 1020
 gagctctgga actggacaga gtaatactgt acagaacatc cttgaacctt tctacgtgtt 1080
 agatgtgtcc gaaggcttct ctgttctgcc tgttattgct ggcacacttg ggcaggttaa 1140
 accatacagt tctgtggaga aagaccagca tcgtattgct ctggacctca tatctgaagc 1200
 caatcacttt cctaaagaaa cacttgagtt ttggctgaga catgtggagg atgaatctgc 1260
 tatgttacia aggccaaaat cagacaagtt atggagcata attatattgg atgtcattga 1320
 gccatctggg ctcatcagc aggaataaat ggaaaaagct gcaatatcca ggtgtttact 1380
 acaatctgga ggcaagatct ttcctcagta tgtgctgatg tttgggttgc ttgtggaatc 1440
 acagacactc ctagaggaga atgctgttca aggaacagaa cgtactcttg gattaaatat 1500
 agcacctttt attaaccagt ttcaggtacc tatacgtgta tttttggacc taccctcatt 1560
 gccctgtata cctttaagca agccagtggg actcttaaga ctagatttaa tgactccgta 1620
 tttgaacacc tctaacagag aagtaaaggt atacgtttgt aaatctggaa gactgactgc 1680
 tattccattt tggatcata tgtacctga tgaagagatt aggttggata cttcaagtga 1740
 agcctccac tggaacaag ctgcagttgt tttagataat cccatccagg ttgaaatggg 1800
 agaggaactt gtactcagca ttcagcatca caaaagcaat gtcagcatca cagtaaagca 1860
 atgaagagca gttttccaat gaaaactgtg taaatagagc atcaacaagt acaaaattct 1920
 tgtcttaatt agtgggggta tataaaaatt ctttgaatg gtcaaatatt ttttaaatt 1980
 gacattaata aagcatattt taaaagattc t 2011

<210> 1720

<211> 2069

<212> DNA

<213> Homo sapiens

<400> 1720

gagaaatcca	gggtcacagg	cattgtgcag	gagaagctgc	tgaatgacta	cctgaaccgc	60
atctttcctc	ttctgaccat	gcacccccag	cagccaccgg	cagttactcg	ggaggctgag	120
gcaggagaat	cgcttgaacc	ggagaggcgg	acgttgcagt	gagccgaggt	caaaccagcg	180
cactccagcc	tgggcaacag	agcgagactc	catctgaaaa	agaaacaaaa	acaaaaaaaa	240
tttttggacc	cgctgcagct	gggaggggag	ctgtccagga	ggccggcctg	ggaatgagca	300
caggcctgcg	gctggcagag	agccgggtcg	agccagccct	ggagaagcag	gccctgctgc	360
aggcccagct	ggaggagcag	ctgcgggaca	aggtgctcca	cgagaaggac	ctgtcccagc	420
agcagatgca	aagcgacctg	gacaaggctg	acctcagtgc	caggagggtc	cctggtgggt	480
gctgcacgag	gcaggcatca	ctgcagaaga	gtgacagagc	tgggcctggc	agtgaagcgt	540
cttcagaagc	agaatctgga	gaaggatcag	gtcgacaagg	acctcaccga	gaagcttgag	600
gccctggaat	ccctgcggct	acaggagcag	gcggccctgg	agacagagga	cggagagggg	660
ctacagcaga	gcctaaggga	cctggcacag	gccgtcctgt	ctgacgctga	gagcggcagc	720
ctgcgtccaa	cagcgtccga	ccgcagcctg	cgggggctct	cgggccagcg	gaccccgtct	780
ccaccgcggc	gtcctcgcg	gggccgaggc	cgttcgcccc	gcagaggccc	ctccccggcc	840
tgctcagacg	actccacgct	cgcttgccct	gattctctcc	gccctgcact	tttgccagct	900
gaagggtccag	ggagaagagc	aacctggtcc	acagcctgca	ggcccagctg	gaggagcagc	960
tgcgggacaa	ggtgctccac	gagaaggacc	tgtcccagca	gcagatgcaa	agcgacctgg	1020
acaaggctga	cctcagtgcc	aggagggtcc	ctggtgggtg	ctgcacgagg	caggcatcac	1080
tgcagaagag	tgacagagct	gggcctggca	gtgaagcgtc	ttcagaagca	gaatctggag	1140
aaggatcagg	tcgacaagga	cctcaccgag	aagcttgagg	ccctggaatc	cctgcggcta	1200
caggagcagg	cggccctgga	gacagaggac	ggagaggggc	tacagcagag	cctaagggac	1260
ctggcacagg	ccgtcctgtc	tgacgctgag	agcggcagcc	tgcgtccaac	agcgtccgac	1320

cgcagcctgc gggggctctc gggccagcgg acccgtctc caccgaggcc tgccgtcgta 1380
 gggaggcttg cggagcagga gcgccctctc tccaccgagc tatcccgcgg tttccagcat 1440
 cccatctggc ggactcctct tcctctctct tctcctactc tgggtcttct atcctggtgt 1500
 tccttgaatg cctatcttcc ttttgtgcct cggaacctct cacgcctgcc acaagttact 1560
 cttttccttg gtagttctga actttaata aggtaatgcc tgtaagaatg ccataaatgc 1620
 tcaataattg tcactgttta ttattttcat cagtaacatc atctgaatca tcagtattgt 1680
 ctgcttttaa cagctgcatt tttcattgtc caaatatagt cacatacatt tgaccatttt 1740
 ataattattg aataataaat tcgttctgct attttacaat gaaaaataat gctgcagaga 1800
 gcatttttgc acatgtatcg tggcagatgt aggccagagg ctcttctttt atccatccta 1860
 tggccaacct atgaatgtat acacgtttta tgagattttg ccagcaatca aagccttcag 1920
 ggaaaatgtc cctagctctt tactacatca gatcaaggac tctggataat tggcataaca 1980
 tcctggaata gctgaaacag agatattatt ctctgctctc ctctgttgct tttgtctttt 2040
 cacgtcttaa taaaagtgc ggtgacaag 2069

<210> 1721

<211> 2928

<212> DNA

<213> Homo sapiens

<400> 1721

atgttagttt aatttttctt tcacaggaga ggaaaacatg gaagcaatgt gaactctcca 60
 tgaatttgta agctaaatca tgtagaatcc atactctctc tggaacctct atagcaggct 120
 ggcagactgc aatgcttaca ggaaccaggc aagcaaatga gtggatggag ttagtgtaga 180
 caaaagggcc ttatatgact ctggccaatt ggagagaact gaaaatgtgg attttttaaa 240
 tatgtgaaat tcatcaactt ttaaattttt ggtaatgaat tcaaatttta aaatcatgg 300
 tgtggccaaa caaatgtac ctgtgggctg aattttatct aaagctgtta ttttgtgcac 360
 tctgcacaag agatgaaggg aagattgcca atgtacaggc atcttgcttg ctgtggccag 420
 gcaaagaggc tatggtgaca gggatggagg ttatgaatgg gctcagcaac atggacttcc 480

actcaccaag gctgacctgg ctacggctac cattaactgc ccaatttccc agcagcagag 540
accaacactg agcacttgat gtggcaccat tccttggggg gatcagcaag ctacttggtg 600
gcaggttcat tatattggac ctcttccatc atgtaaagga cagcagtttg tcttacttgg 660
aatagccact tgctccagat atgggtttgc ctatcctgca tgcaatgctt ctgcgaagac 720
taccatccgt ggactcacag aatgccttat ccagcatcat gttactccac acagcattgc 780
ctctgaccaa ggcactcact ttacagctaa agaagtgcag cagtgggctc atgctcatgg 840
aattcactgg ccttaccatg ttccccatca tcctgaagca gctggattaa taaaatgggtg 900
gaatggcctt ttaaagtcac aattacaatg ccagctaggt gacaatactt tgaagggctg 960
gggaaaagtt ctccagcagg atgtgtatac cctgaatccg catccaatgt atgacactat 1020
ttctcctgtg gatttctcct tgaggattca tggatccagg aattaagggg tggaagtgga 1080
agtagcacca ctcaccatca cctccactca tcatcatccc tagtgaccta ctagcaaaat 1140
ttttgcttcc tgttctgca acgttatgtc ttgctggcct ggaggtgtta gttccagaaa 1200
gaggaatgct gccaccagga gacacaacaa tgattccatt aagctggaag ttaagattgc 1260
cacctggcca ctttaggctc cacctacctc taagtcaaca ggttaagaag ggagttacag 1320
tgttggctgg gttgattgag ccatactacc aagatgacat cagtctacta ctcaacaatg 1380
aaggtaaaga agaatatgaa tggaatacag gagatccatt aggggtgtctc ttagtattac 1440
catgccccat gattaaggtc aatgggaaac tacaacaacc caattcaggc aggaatacaa 1500
atagcccaga cccttcatga atgaaggttt gggctactct accaggtaaa aaaccatgac 1560
ctgttgaggt gcttgcagag ggcaagggga atacagaatg aatagtagaa gaaggtagtc 1620
gtcaagacca gctacgacca catgaccagt tgcagcaacg aggactgtaa ttgtcattag 1680
tctttcctcc ttcttttgtt aagaacatgt ttgtgcatgt gtacacttgt actaagaaaa 1740
tatcttcggt ttatttcctt tatttttctt ttgtcatgtg acataagatt tattgacttc 1800
atattagcat ttaagtgttg ttaactttac gaaatagcat ttaggttaag gattagtaca 1860
cttccggttg tatgaaggat ggctgtattc tattaggcat aattatgacc ttattatctt 1920
tatttgaaga ttatgtatga ttccaggaga tgtgtatggg ttcaagggtg acaaggggtg 1980
aacttgtgat ggttaatat gtcaacttga ttgaactgaa ggatgcaaag tattgttctt 2040
gggtgtgtct gggaggggtg tgtcaaagga gattaacatt tgagtcagt ggctgggaga 2100
ggcaaaccba ccctcaattc ggggtgggcac catctaata gctgccagca cggctagaat 2160
aaggcaggca ggagaagacg gaaggactag acttgctgag tcttctggtc ttcattcttc 2220

tcccatgctg catgcttcct gccctcaaac atcagactcc aagtcttca gcttttggac 2280
 tcttggactt acaccagtga tttgccaggg gctcttggac ctttggccac agactgaagg 2340
 ctgcactgtc gccttccta cttttgagge tttgggactc ggactggctt ccttgcttct 2400
 catcttgcaag atggcctatt gtgagacttc accttgcaat cgtgtgagtc aatactccat 2460
 aataaacaac ctttcatata tacatctatc ctattagtgc ggtccctcta gagaaccctg 2520
 actaacacat tatttttcat ctttctgggc ctgcaccaatc aatttaggga atgaaaagaa 2580
 ggaattcatt ctactttgtt cccgtttgtc atcttcacag ctgagaagca ggctttctac 2640
 atcttcacca ggaggccagt ttgtggatac tctgtctttt actggtaaag atgctccttg 2700
 ttgctggatt ctagatccag aaggcatcaa ggcatgcaaa gtcttcgaaa ttagggccaa 2760
 caaggaaaac tttctgtgat tgtgggagcc gagagttccc atcatcagac tgccttctgt 2820
 gaagaactgg tgatttcttc tagaaaatca atccattga ctctgtcct tgttcatgac 2880
 ttaatccaga acagtgcctg tggatgctca gtaaataatt gtgagatg 2928

<210> 1722

<211> 2325

<212> DNA

<213> Homo sapiens

<400> 1722

ttataaaatg gcttggttaa gtcaacgcca gctggcccgc tcctgccttg atttgaatac 60
 aattagtcag agccctggat gggcccagac acaacttgcg gaggtcacca tagcttgcaa 120
 agtaaaccat caaggagggt cagtacaatt acctgaatca gacatcactg ttcatgtgcc 180
 ccaaggatcat gtggctgtgg gagaattcca agagggtgtc ctaagggtt tccttgatcc 240
 gccacacatg ctttaaccatg atctttcgtg cactgtgagc ccgttgttgg aaatcatgtt 300
 aggcaacctc aatacaatgg aagccctttt gctggagatg aaaattgggg ctgaagtaag 360
 aaaggatcct ttcagccaag tcatgacaga aatgggtgtg ttacacagct tgggtaaaga 420
 aggccctttt aaagtthta gcaactgcta catttataaa gacaccatcc aagtcaagct 480
 aatcgacttg agtcaggtaa tgtatctagt gggtgctgca caagctaaag ctcttccgtc 540

gccagctgcc accatttggg attatatcca caaaaccacc tcaattggaa tttatggacc 600
caaatatata catcccagtt ttactgttgt tttaacagtt tgtggacaca attatatgcc 660
aggacagctt acaatttctg atattaagaa ggggtggaaaa aacatatctc cagttgtgtt 720
tcagctctgg gggaagcagt catTTTTact tgacaagcca caagatttaa gtatttctat 780
tttttcctgt gacctgatt ttgaagtaaa gacagaagga gaaaggaaag aaattaaaca 840
aaagcagttg gaagcaggtg aagtagttca tcaacaattt ttattttctt tagttgagca 900
cagagagatg cacttgtttg attttttgtgt tcaagtggag cctcccaatg gtgaaccagt 960
tgcacagttc tctatcacta ctctgatcc aaccccaaac ctaaaaagac tctcgaatct 1020
gccaggctat ttgcagaaga aggaggaaat caagtctgct cctttatcac caaaaattct 1080
tgttaaatat cctacatttc aagataaaac attgaacttt agcaactatg gggtaaccct 1140
gaaggcagtg ctaagacaaa gcaagattga ttacttcctt gaatatttca aaggggacac 1200
aatagctctc ctcggggaag gtaaggtaaa agctattggg cagtccaaag tgaaagaatg 1260
gtatgtagga gtcctcagag gtaagattgg acttgtagac tgcaaaaatg tcaaggtgat 1320
ttcaaaggag caagtaatgt ttatgtcaga tagtgtcttt acaaccagaa atcttcttga 1380
acagattgtc ctgcctttta aaaaattgac ttatatctac tcagttgtat taaccttggt 1440
gtcagaaaaa gtttatgatt ggaaagtttt agctgatgtc ctgggttact cacatctgtc 1500
cctggaagat ttgatcaaa ttcaagcaga caaagaatca gagaaagttt cttatgttat 1560
aaagaagtta aaggaagatt gccacacaga gagaaataca aggaagtttc tgtatgaact 1620
tattgtggct cttctgaaaa tggattgcc aagagttagtc gcacgtctca tccaagaagc 1680
tgctgttctg acttcagctg tcaagcttgg aaaaggctgg agggaactag ctgaaaagtt 1740
agtacgactc acaaagcaac aaatggaggc atatgaaatt cctcatcgag gaaacactgg 1800
agatgttgct gttgagatga tgtggaaacc tgcctatgat tttctgtata cctggagtgc 1860
tcactatgga aataactaca gagatgtgtt acaagacctt cagtcagctt tggacagaat 1920
gaaaaaccct gtgactaaac actggagaga attaactgga gttttaatac tagtaaattc 1980
tttggagggt ttgagagtaa ctgcattctc cacttctgag gaagtataga aacaaagcgt 2040
gtgtttttga tgggaggga aatgaggtaa tgggtgtgtgt gtgtgtgtgt ctgtgtgtgt 2100
ctgtgtgtgt gtgtctgtgt gtgtgtgtct gtgtgtgtgt gtgtgtgtgt aggaaagaaa 2160
gaatctcaga aaagcattat attaatTTTc ttcatgctca aaaccagttt tttttcctg 2220
atgaaagcac agcctaactg ataaccaaga tgggttttat cctcaaatat gtatttttgt 2280

gtatgtttca aatacaagta ttaggctgct ttgttcttag aaagg

2325

<210> 1723

<211> 4492

<212> DNA

<213> Homo sapiens

<400> 1723

atttagaaaa gttttggatt catctgttta tgaggaggaa aagaggccaa gaaaaggcag	60
caatttgtcc atgtgcttaa ttagtgagtgc gcagtggcag taacctgggc tgctgagctc	120
cctggactcc ctgatcccag ctcaaaatag tttccagttt tcatctgcca gttgcttcgg	180
aggcttttct aaggaagaca gttcataaaa tgaccagaa ttcacccctc ttaggtgata	240
ggatcattac tccttataca ccccttaggt ctcagcctat gaacaaacac ttgtttgttt	300
ctctgtttac cctgttccaa accaccgaac tggattttgc caacaagaag agctgtttcc	360
tgtgcctgcc cctgagagct gatggcttcc cagagatgcc tcacagtcct gcgcagacag	420
agagaatgca gaagctggca aaggatcctc cacacgcaag atcagaggac gtcccagatc	480
atcttttctt tgtggatact gcaggtctac gtgaaatagt gtgtttttgc ggggtgctgt	540
cccttaggac aagtgaaggg ctgatgagaa aggaaactgc gtgaggtatc acaaagccat	600
ccatggggca gcctatgaaa atatgttcac acggagggaa aatatcagtg ttcatatatt	660
ccttttagtg ctgccttccc ttttccactc ccacaccacc cccaaaacat tttaaaaagt	720
tagttttgga agactgactt tgtcttattc taaaatgtgt gcacagtaac agaagtgaga	780
aagtcattcc agtcttcac tagtcacctg agtcacaact ttaatgcagc ttctttttgt	840
tcctcaatct ttgattacat aatcatttgc aaaaatacac tcctgaaatg aaatcacagt	900
tagccttgca ttttggagta gtattagaat taagacttgc catcaaagag gttgccatct	960
agaatgttta ttctctttac tgtgccccag ggggtttaca tgcatttgca actttatatt	1020
tattttatcc tacaggaaaa aaggctcaga gtgaatggct attagcctaa ggttactcag	1080
ctagtgatat aggagttaag aagaaattat ttaggcagat agtgagggtta ctggagtcct	1140
cagaaagggtt ttccttttaa tgaaaagcag ccccaaaatc tttttctttt ctaacaaaga	1200

gcagcctgta aaatcgagct gcagacatag acaagcaagc tagaagcttg cacaggcgaa 1260
tgcctgcagt tgtgccaaca ggaaaaggct acctggaact aggcatgttc aaaatggcag 1320
ctctgtcttc tcttctcttt gccagccagg tgtacagtaa ggagcagaca acatggcact 1380
ggccaagtgg aaaggctgtt tgcataataa gattacgatg ggggtggcctg ccttcctgt 1440
gtgctacgta aacatcacac ctgatccaac caatctgcgg gccctacata aatcagacac 1500
cacctcctcc agcctgccta taaaatctgg tacactccac gtgggccaga agtcccat 1560
ggatgccccct ctctttcgca agagagagag ctgttctcct ttctctttct ttgacctatt 1620
acattccgct cctaaagtca cttctcatgt atgtccacgt ccttaatctt cttgatgcaa 1680
gacaatgaac ccgggtat 1740
cttgaaatgc aaattcatgg tcatctgggt ccaaagccca tattaacaaa atttttttaa 1800
ttgtgataaa atacacataa cataaagttg accgtgttaa ctgtttttaa atgtacagtc 1860
cagtagtggt aagtacattc acattgttgg gcaatccttc ttcagaactt tttagtttc 1920
ccaaactgaa gctctgcgtc tattaagaac aactctttct tccaatcccc agctgttggc 1980
aactatcatt ctactttctg tctttatgca ttttaataatt ctacgtacct catataaatg 2040
aaatcaaatg gtatttgtaa ctggcttatt tcacttagca taatatectc aagattcagt 2100
catattgtta tatgtgtcat aaattgcatt tgtaatatca caaactacac cttgatatat 2160
tgtctactga ttagcatgga ttataatta ttttatgct ttgccttcta cattctataa 2220
aagaataaaa agttgagtta aaaacaaaa ttataataat gaaagttttt acatttgccc 2280
atatttttac ctctgctaga aaattttata tggcctagca tccattcatt ttaacttaag 2340
ggattctctt tcacattcct tacagaacag gtctagtagt aatgaatttc ctcagcattt 2400
ttttaaatct gggaagtttt aattctttgc ttttgaagga cagtattgct ggatatagaa 2460
ttcttagtca caactttttt tttctttcag cattttaaat atattatctc actacttttt 2520
tatttgcaag gtttttgctg agaaatctgc tgatagtgtt attgaggaca cattgtatag 2580
ctatttttcc atttctgttt tcaagatttc ctttgtcttt gatttctcac agttgactat 2640
attttagttg gatctctttg gattatcata cttggagttt gttgagcttc ttgtatttgt 2700
agattcatgt cttttctcaa atttgggcag tttgggttca ttatttctcc aaacacagta 2760
gtttaccatc acccacagtt tcactttcca cagtttccat tgccaatggg caacagcagt 2820
ttgaaaatat taaatgaaaa ttccagaaat aagcaattta taagtttaaa tcacatgcca 2880
tactgagcag tatgatgaaa tcttgtgcta tcctgctctg ttctacctag gacatgaatc 2940

atccctctgt ctaggatatc tacactgtat atactacctg cctgttagtc atttagtagc 3000
catctcagtt atcagattga ctgtcatggc atcacagtgc ttttgttcaa gcaactctta 3060
gtttacttaa caaagtcccc aaagtgtaat ataggtaatg ctggaaattt gggtagtcca 3120
aaaaaaaaat gttcatggag tgcttccttt aagtaaaaag ttgaaaattc ttgacacaag 3180
gaagaaaaaa aattatgcga ggtttctaag atctacagta aaagtaaadc tatccatgaa 3240
attgtgatgg aagaaaaaga aatttgttag tagtacatat agggtttgat actatatttg 3300
ggatgttggg acatacccaa ttgataaaag aggactactg taagttctct gttctttgtt 3360
tctctcttct cctaaaactt cataatgagt atattgggtc atttggtagt atcccatagt 3420
ctttcagtct ctgtttactt ttcttcattc atttttctat tggcacctta gcctcaataa 3480
ttttaaatga tctctcttta acgttaagga ttttttttct gcctattcaa gtctgccatt 3540
aaaacattag gctggatgcg gtggctcacg cctgcagtcc cagatttttg ggaggctgag 3600
gtgggtggat aacttgaggt caggagtcca agaccagcct gactagcgtg gtgaagcccc 3660
gtctccacta aaaatacaga ggttggccag gtgtgggtggc gtgcacctgt agtcccagct 3720
actcgggagg ctggggcgagg agaatcgctt gaaccagca ggtggagggt gcagttagcc 3780
gatatcacac cactgcactc ctgcctgggc aaccaaggga gactctgtct aaaaaaaaaa 3840
tacaccgtag taaatgtttg aattcagtta tcgtgttttt cagctccaga attaatctct 3900
gttaggttct tttttataac ttttatctct gttttgcttt gttttgagtc agggctctcac 3960
tctgtagcat aggttgaggt gcagtggcac aatcttagct tactgcagcc tcaacttccc 4020
tggcatcagg tggccttccc gcctcggccc tactagtggc tgggactgga ggtgcacgcc 4080
atcatgccca gctagttttt gatttttagt ggaggcgggg ttttgctgtg ttaccaggc 4140
tggctcttag ctcttgggct cggatagtc tcccacctca gcttctgaa gtactgggat 4200
ttaggcgtg agctaccgg tctgactaat ttccatttcc ttgtgaatat gtgcattttg 4260
ttcatgtatc tttttatga ttttctttac ttatctgcct gtgttcttct ttggctcata 4320
tttaagaata taagcatatt taagacagtt gttttaaggt ctttgccaag aaagtctgaa 4380
aactgtgttt cattaggggt agtttctgga gatttatttg gctctttgaa tgtgccgtgc 4440
ttacctattt ctttatatgc tttgtggtct tttttattga aacttgggca tg 4492

<211> 3263

<212> DNA

<213> Homo sapiens

<400> 1724

```
aggttacgat ctgccctccc gaggtctgggg agccaagact acttgccttt gttcccagct 60
ccctgcctgc gatgctggca gcaaaatctc agccccgccc ggcagggcag gagctcaggg 120
ccgtgttgca acgtgactaa tggatgagaa ggttgaggag gaaagccatt acttcaccaa 180
tgtgaatcaa ggtcattcgt cacctcggga agcacacaga gctgcgacgt tcaggaggga 240
ggcacgctgc tcccaagcca aaccacgatg cagcctggca ccagtcccat gcagcaggga 300
gaaggggagt ttctggaagc gaggatgagc tgggcagcca ggcccagggc cctggccgtg 360
catgcatcag cccctcctga gaaaaagagc tcaaggacta catgggggtct taccacagag 420
tggggcaacg gtgcagtttc caggaggcgt tggcaggagc tgaccggcca ctgacgttg 480
ccgggggtccc taggggacag ggactggagg gtcagcggcc tctgaccgtc cagcgtcatc 540
tgaggaaatc aggccaatcg tgagccacca gagtgtcctc accgagacgg cctctctccc 600
tagtataaca ggccacattt gctgcctttc tgggagagtt agaagcaaac cacgtgggtg 660
acttcttttc aaagtctctt gcctcagagg aggaagcccc atgggtggag gccaggcccc 720
aggccatcct gctctgggcc agagcgtgcc tgtgtctgat gagcgaggac atgcctcgtc 780
tggctgagcc ttccatttca caccggcagc tcgaaccccc catcacggct tccttttggg 840
ctccccctct caggggaccg agcttgaaat gtgcttgccc ttcattcccta aggctgcgt 900
cccttcctca gagaggacta agccccctct ccagtcttga tgttctccga ggcccttctt 960
attcacagaa cctatctggc ttattttatt gcttgcttgc ttctgatgtc ttctcttact 1020
gaaaggtaag ttatgtggga gatggaatca tgccagcttt gggtcaccat tacatcctcc 1080
acacttttct attctgattt atttatttat tttagagtca gagtcttgct ctgtcgctca 1140
ggctggagtg cagtggcaca atcatagctc actgcagcct caaacttctg gacttaggtg 1200
atcctcctgc ttcagcctcc tgagtaacta agactgcagg tgtgcatcac catgcttggc 1260
taatttaaaa aaattgtttt aatacaacaa ttggctggac gtggtagtgt gaacctgcag 1320
tgccagccac tgtggaggct gaggtgggag gatcgcttga gccaggaga ttgagtctgc 1380
aatgagctga gatcgtgcca ctgcattcca gcctggcaac agagtaagac cctgtctcaa 1440
```

tctttttttt ttgtagacgt ggggtctcac tatattgccc aggttgggtct tgaactcctg 1500
gactcaaggg attcctctgc ctcagcctct agtgtcactg ggattacagg tgtgagccac 1560
tggacctcgc tcccctgaaa agttttttgtg gagcctggca ccaggggaac ccaatatcta 1620
tcctttgaat gaatgaataa atgcaaggaa ataaatgaag aggaggcggg ggtcaggagg 1680
ggcgtgtttt atatgagtag ataccatgca aaggctcctc tgggtgccat cgccagtgcg 1740
gggcagcctg cgagccctt gagggaggtc tccctgacac actgcccact cctcctgggg 1800
ccgagcagga gtcacatcca agggctgggt cattatctga taaatgagtg ggttgtgcgg 1860
atgagtaaac agggactgac ccagaggta ggtgtaactc agcctcagaa actgcgtgtg 1920
tcaataggaa tcgaagggcc aaggaatgtg tttttcgtt atgtcagctt gctgcaaagg 1980
accacacctg cttctcgacc caggaacgtg ggaaagggaa aggcttggct tgttttgggtg 2040
gagatggaga tgctggtaac agtggaggaa tgccctcctt ctgattcaca gtggggagggt 2100
gctctgggcc cctgccactg cccgaggact tcaggtaagt cagcccgtgg cccccagccc 2160
ttccctgcc aacgcccctg cagacggctt gttctgacaa gtatgcgctt tctggatgga 2220
acagcctccc ttttgtcaa acccttcctt tgaatttaa atgcacaaag aacctttcga 2280
agaggaaaag aatgggatca ggaagaggag gctgtatctc atttgacac tcaagcccac 2340
agctcctgcc caagagtctc tgtaatttgc tcccacatca cgtcatgact tttggctccc 2400
agccagggtg ggtggcatct gtggcttcat ccttctggga agtcagggtc atgttccctt 2460
gagtcttctc cctttcctct cccagcttt tggttgtcct gctgagagga tgcggcattt 2520
gagcagtagc ttctggagcc cagagtgaag cccacccag gcaccctgac aggaccacag 2580
gaatgctcct ggcacagcaa gcaggactct tgagaagctc agcctccacg ctccttgtag 2640
atgttcagtt caaactccac agtttgtgtg actcactgaa gggcttgggt tggtctctgc 2700
tgacgagtct gtcacggtg ccaggtgaca cgcttttccc ctctcccgt ctagtctct 2760
ctcttgcccc agggcttctg gtggggaagt ttaacctcct cttcataagc agtgggaggg 2820
ctactgtgct gccctctggc ccaagctctg gtattccctt tgcagtgggt ggtgctctca 2880
ttcctttgca atgtgccctg cagtgtgaac ccaggggatc catgagacag ggaactcacg 2940
tctgttttct tcatttgggt tagcatgcca ttgggcgttt gccagacagg gcctatcatg 3000
tgggcctac acctattcac acacctgcca tttgccttca gaatcctgtt cccagtgggt 3060
aatgggttta aaagccata gctgagttta tccacattgg atccgacca cattccaatg 3120
ctcttttaga aaccgggttt caccgtgtta gccaggctgg cctcaaactc ctgacctcaa 3180

gtgatccacc cgcacgcacc tcacaaagtg cttggattac aggtgtgagc tactgtgcca 3240
ggccagaaaa aataaaataa aat 3263

<210> 1725

<211> 3670

<212> DNA

<213> Homo sapiens

<400> 1725

ttattccagg cagttacagc tttgaatcag ttttatcagc thtagctgat ttaaggctc 60
ctgtttttga acctggaggt tctatgcaac aaggcatgta tactcccaa gctgaagtct 120
gggatcaaga gtttgacccc gtcatggtca ttcttcgaac agtttaccgt agagatgtgc 180
agtctgcaat ggacagatat actgcatttt taaaacagag tggaaaattt cctggaaatc 240
cctggcctcc atataagaaa aggacatcac tccatcctag ctataaaggc cttatgagac 300
ttttgcactg taaaacttta cacattgtgc tattcactct gctttacaag attttgatgg 360
atcatcaaaa tctgtcagaa catgtactct gcatggtttt atatctgatt gaattaggac 420
ttgaaaattc tgctgaagaa gaatcagatg aagaggcatc agtgggtgga ccagaacgtt 480
gtcatgacag ttggtttcct ggcagtaact tagtgtcaaa catgcgacac ttataaaact 540
atgttagagt aagagttcca gagactgctc ctgaaattaa agaaagcata ttgtctttgc 600
taattaaact tcaccacaaa ctctcaggaa aacaaaactc ctactatcct ccttggcttg 660
atgacataga aattttaatc caaccagaaa ttcctaaata cagtcatgga gatggtataa 720
ctgccgtgga aagaatttta ctaaaagctg catcgcaaag tagaatgaac aaacgcatca 780
ttgaagagat acgtagaaaa gtgaccctc ctgtaccacc taaaaaagtc actgcagcag 840
agaagaaaac attggacaaa gaagaaaggc gacagaaggc tagagagagg cagcagaaat 900
tgcttgcgga gtttgcttca cgacagaaaa gctttatgga aactgcaatg gatgttggtt 960
tgacctcttt tggcagtagc cagggcacag gaagaacaat tgagggatca ggcaaatatg 1020
attgctagca aacagaggca gttcacagaa gtcttcagga taatgagctc tactttctcc 1080
cagtctcggt tcttgatgc tgcagtgggtg acagattctc ctgagaatga tattcctatg 1140

gagatcacca cggcagaacc acaggtttcc gaggcagtat atgactgtgt tatttgtgga 1200
cagagtggcc cctcctctga agatcgacct actggattag ttgtactgtt acaagcatcc 1260
tcagttttgg ggcagtgccg tgacaatgtt gagccaaaaa agttgccgat cagtgaagag 1320
gagcagatit acccttggga tacctgtgca gccgttcatg atgtgaggct ttcattatta 1380
cagcgttatt ttaaggatag ttcattgtctc ttggcagtat caattggctg ggaaggaggt 1440
gtttatgtac aaacctgtgg tcacacatta catatagatt gtcataaatc ttacatggaa 1500
tcattacgga atgaccaggt tcttcagggc ttctcgggtg acaaaggaga attcacgtgt 1560
ccactctgta ggcagtttgc taacagtgtt cttccatgtt atcctggaag caatgtggaa 1620
aataaccctt ggcaacgtcc tagcaacaaa agcatacaag atctcataaa ggaagtggag 1680
gagctgcagg gacgaccggg agctttccca tcagaaacaa atttaagtaa agaaatggaa 1740
tctgtaatga aagatataaa aaataccact cagaagaaat atagagacta tagcaagacc 1800
ccgggctcac cagacaatga ttttctcttt atgtactccg ttgctagaac caatttagaa 1860
cttgaattga ttcattcagg aggcaatttg tgttcagggtg gtgcaagcac agctggcaaa 1920
aggtcttgtt taaatcagct gtttcatgta ttagccttgc acatgcggct ttatagcatt 1980
gactctgagt ataatccctg gagaaagctc acccagttag aagagatgaa tccacagctg 2040
ggatatgaag aacaacagcc tgaggttcca attctttatc atgatgtaac atcccttttg 2100
ctcatccaga tcttaatgat gccacaacc ttagccaaag accactttac ctgcattgtg 2160
aaggctactt ttaccctact gtacacacag gctcttgag cactctcagt taaatgcagc 2220
gaagaagata ggtcagcctg gaaacacgcg ggagctctca aaaagagtac atgtgatgca 2280
gaaaagtctt acgaagtatt actgagcttt gtgataagtg aactgtttta aggaaagtta 2340
taccatgaag aaggaaactc ggaatgtgca atggttaacc ctattgcttg gtctcctgaa 2400
tccatggaaa aatgcttaca ggacttctgc ttacctttc tcagaatcac cagccttctt 2460
cagcaccacc tttttgggga agatttacct agctgccagg aagaagaaga attttcagtt 2520
cttgccagct gcctgggact tctgccaacg ttttaccaaa cagaacatcc attcatcagt 2580
gcctcctgtc tggattggcc agttccagca tttgatatta taactcagtg gtgttttgag 2640
ataaaatcat ttactgaaag acatgcagaa caaggaaaagg ccttgcttat ccaagagtca 2700
aaatggaaat taccacacct actacagttg cctgagaatt ataacacat ttttcagtac 2760
taccacagaa aaacctgtag tgtctgcacc aaggttccta aagatcctgc tgtctgcctt 2820
gtgtgtggta cttttgtatg cctgaaagga ctttgctgca agcaacaaag ttactgtgaa 2880

tgtgtactgc actctcagaa ctgtggtgca ggaacaggta ttttcctttt gatcaatgca 2940
 tcggtaatta tcatcattcg aggtcaccgc ttctgcctct ggggttccgt gtatttggat 3000
 gctcatggag aggaagaccg ggatcttagg cgaggcaaac ctctctacat ttgtaaggaa 3060
 agatacaaag ttcttgagca acagtggatt tctcatactt ttgatcacat caataaaaga 3120
 tgggggtccac attacaatgg gctgtgactc tccacctcag cattgcatcg tatcatcatt 3180
 ttcgctacga atttattttt caacaataag ctttaactta atttggggga ttaacacttt 3240
 tgctgaggga gaaaaagaaa acatacatta tgaagccttt ccaaaattag gtgcttggta 3300
 atcacgttaa tgggtataatt tttttttttt aatatctgga gaacattaat aacaagttaa 3360
 attattcttt agtgggtcatt ttttaagtgc acaattaata agaagcaca cttgttcaca 3420
 aactcattca gaaatgattc tccaacaat gcatatcagc tattcattga tacttagagt 3480
 ggggtgtgatt tatttgacat tttactgctt ctttctgtct gtgtgtttta atttgcattc 3540
 gccaaagcata atgcatcttt tttcctctgc cattcttgtg ttgattggag aatttttctg 3600
 tatgtaatta gaaaaaatg taaaacatga tttatgtgaa atactgtata gtaaaagttg 3660
 gtctaatagt 3670

<210> 1726

<211> 4174

<212> DNA

<213> Homo sapiens

<400> 1726

agaggagtcc agactccgat cccagctcca ctgctgcctc ccgcacgcct ggagccagcc 60
 cggccctcat ctgtgcacgc aggggtgtgt gcacccacc aggcatctcc aactcggaga 120
 ttcagctgca gccctggccg tcagaccac gggccctgaa gtccaggggg ccctctcgcc 180
 cgctcctgt ctgcagatgg ggaaattgag gccagccgg ggcaggggat ttgccgacgt 240
 ttcgcaacaa attcgagtca gaaataggcc cagctgggcc tgccggcgcg gaggcccgt 300
 cgggacactg ctggccaacg cagggccag cacgggtcca gtcacacca cagcagggtc 360
 ctgccagcct tctccgtct cccctggggg aagtgaccct cctccacccc ccagagccca 420

cgtgagtccg caggaggccc ccctgggccca ggtgccaggt gccgagtggc tgcctccaac 480
tcgggggctg ctatgcaagg atgtttccag ttctccgggt ccttccttcc acctgggagg 540
tccggggctg ccgggccatg ctgggtccctg tggccctagg gcccggccag cgcagggcct 600
ggcagggaga gggggaaacg tgggtgaggg aagtgagtca ccccttggga cacttccttg 660
ctcagttcct gcctctcagc agcttctgcg aggcaggtea cacctgcagg ggagcctggc 720
agcgctagga gaggcaaggg gtgggggtgc cgccttttca tggggccaag aggggcccctg 780
agagggacac cgggtggaca gccccagggg cctccttgct cggccagccg gcatctcccc 840
ctgctcccag cataggaggg ccgggtggcct gagtgtcttg ctccgtgtcc ggaaaagact 900
catgttccag gaaaaagccg cttggcaggt cggagcaagc tcatggtgct gttcccagac 960
ccgatgcgat gcgtgtggag ggaggcctgc ccttgcccc agggtgcag ggcgagaaca 1020
gaccttgatt cctgtataa ccctgggcac ggccctctgtt tctccgcgtg tgcccggggg 1080
cggcgtgttc tcagggcagg ggcctctaag gatcagagtg aggctgcagg cccaggctga 1140
ggcctgcacc acctcggccg ggagatgagt aaatgtctgg gtccccctgg cactccaga 1200
gtgaggccgc caagcctccg gcctgaagtc cggctcctgt tctcagactg ccaggctctt 1260
gtgcggtggc gtcgggcagg cagggcaggg aggccacggc agccatcttc ccggggagct 1320
ggggcctggc cagcagcggt tcccagtggc ctctcctgt gctccgagct gcattacctc 1380
atcggaagc cattccagaa aggagctgcg gagcccctgg gagtgggagt ggggagagct 1440
gcgtcagcgc cctcctggca gcctcggtgc cagacgaggg caggcgtcac gcctccgggt 1500
gtctgcctgc cgagcgactg ctgggagagc agctggcttt tgtcagcggt tcgggggtgac 1560
cgggctgggc tgcagcaggc aggtggcgtg gcacggccca tggccggcca gctaccaggt 1620
gggcagagga tctatttcaa gagccggaac caaatggcca ggcatgaggg gaagccaggt 1680
gcaaactcag tggcagagac caagccctga cccgcagtc ccaggcctca gtttcccctc 1740
aggccagccc tcctcccagc acctgtcctc tgcttcctat agccacaaag agcaccagac 1800
acgagtgagc aggtgactac actccctgct gcccgtggt gtaagccaga ggccctgcca 1860
cccacagctg gcctccagag gcctttcttg accacagggt cagggtgag aggggtgggg 1920
gtggcagggg cagctgaggt gctggagagg gaggacaagc ttctgcctg tggaggagac 1980
aagggcagct cccaaccctg ctctagcct tcctgccaag tttggattcc agaaacacct 2040
cttggtgcct cagttttctc atctgttttg tgtgtgtgtg tgtgtgtgtg agtgtgtgtg 2100
tgtgtgtgtt ttgtagatag ggtctttctc tgtcaccag gctggagtgc tgtggtgcga 2160

tcattggctca ctgcaacctc tacctcctgg gctcaagcaa tcctcccgcc tcagtctctc 2220
gagtagctgg gaccacaggt gcacaccacc atgcctggct aatttttgtt tgttggttca 2280
tttttgtagc gacagggctc ccctatgttg ccatactgg tctcaaactc agctcaagtg 2340
atctgcccgc ctcagcttcc caaagtgttg ggattacagg catgagccac tgcgcccagc 2400
ccggctttct catctgtaaa atgggttgac aatgcccacc cagataatgg ttgaaaggac 2460
tcgtgaaacc acgtaggagg cacaggcaga caggcacttg tgggggtcca tgaatgagcc 2520
tcagtgccag ctccccaggg ccagcttcca gccttcacac tgtctgggcc agaggagtct 2580
tcctaaaaca gaggactgtg tggagcactt ctccacagag aagcctcttg cctcaagtca 2640
gtgacactgt cctccagccc caccactg tacatgtgcc caagctcatc atacttttcc 2700
tcaaaccctg tctgtcagga aaactcctac tcaccccgca aaactccatg tgagatgccc 2760
actcgtcat ctaaaatgcc tcacaggatt actctaagaa ccaaagaaga atatacatgt 2820
gtgaacacat gggcatggtt gccaaagtga gggcatcaca ctcatgactg tccccattac 2880
ttattagagc aaccataacc aagaatgcag cgggtgggcag gaagtgttac tggggatagg 2940
aattagcagg aagtttttct ggcttggat ttaagcccaa ctttggcaga tggcagaatt 3000
ttcagagagg aaaggaggaa attggaggct agtgtggcag tgttaaataat ggctgcaaag 3060
tccttgggtcc ttctccatt gaagcgtggg ccctatggcc tctcctcttg aatccagggtg 3120
ggcttgtgac tacttcagcc aagacaatgc ggcagaagtg ttgttgggta acttccaagg 3180
ctcactcata aaagaccata tggcttataa cttggagtcc taagttgcca tctaagaagg 3240
aagttcaaca acctgagact tccatgtgt gaggaagccc aagctccatg aggagtcaca 3300
tgggggtgca ctggttgaca gttccagcct tccagccagc ccagcccagg caccagccat 3360
gcgaatgcag aagccatctt ggaagtggat ccaccagcag cagggtgtccc ggccccagc 3420
catttgagtt gtctcgggtg agccactgaa ccacacagag tagagtggag ttgtccctac 3480
tgtgcccttt caggacagaa ttctgagcg taataaagtg gctgtagttt tagtactgt 3540
tttggggctg tttgttatgc agcactaatt aactagaaca ggtgagaaga tcagaacttc 3600
ctggtgctta aagccagcca cacagcccct cgaagcaaga ttgtcttaat ctggaagtca 3660
gtcccaagaa caggttctcc ccagtgtct cagcattccc caccagcc tggcccataa 3720
gcagtgttg gggcatgcgg ggttgctgga gcaactccaa gccactcca acacctggaa 3780
ggagcctccc ctctcagga ttctcagcgg cgtttgcagc ttggatgact gtggaccag 3840
aagctctggg gagttatcca ggttctatgt ggcatgagta tccctctgtg cctcagtttt 3900

ccacccatgg aatagggcac gaaactcata atctctctga tccctctcgg ctccctacccc 3960
 accttcctgg aggccttggt cattctcatg tgtgtctccc ccacatcctc ttacccatgt 4020
 gactctgcct gccatgaaag caggagtcac gactgcagtc tcacggttga atgttctgca 4080
 cctggcaccc agcctaggcc agaggatgga tgccacacca ctggtgtttt ctgaatgaat 4140
 caatgagtca gtcaataaat ggagtgaatg aatg 4174

<210> 1727

<211> 3896

<212> DNA

<213> Homo sapiens

<400> 1727

cttagaaatt catttagtac catatacccc aaaatttcca actcccaagc ccagaaagac 60
 acgaactgct cgtctgttac gccaaaagtg tgtagatact cctagtgaag gactgaaga 120
 accggggaat tcagacagta gctcttcctg tcttactgaa aatagtttga aaatcaataa 180
 aatcagtgtt ctgcatcaga atgttttgtg taagcaggaa caggtggata aaatgaagct 240
 aggaaataaa agtgaattga atatggaatc caacagtgat gcacaggact tagtcaattc 300
 acagaaagcc atgtgtaatg aaacaacttc ctttgaaaaa atggcacctt cttttgataa 360
 agactctaatt ttgagttctg acagcacaac tgtagatggg tctagtatgt cgcttgctgt 420
 ggacgaaggg accggtttta taagatgtac tgtatctatg agcctgccta agcagctcaa 480
 attaacttgc aatgaacatt tgcaatctgg gagaaacctg ggagtttctg cccctcaaat 540
 gcaaaaggaa tctgttataa aagaggaaaa ttctctacga attgtcccca aaaaacctca 600
 aagacatagc ttgcctgcta caggagtgtt taaaaaggct gcctccgagg agcttttgga 660
 aaaaagtctt tatccttcaa gtgaagaaaa aagttcagag aagagtctag aaagaaatca 720
 ccttcagcat ttgtgtgccc aaaaccgtgg tgtgtcatcc tcctttgata tgcctaaacg 780
 ggcttcagaa aagccagtgt ggaagttacc tcctcctatt ttaccctttt cagggaaccc 840
 agaattctta aagtctgtca ccgtatcgtc aaacagttag ccttcaacag ccctaaccac 900
 gcccagagca aaatcggtat ctgctatgga tgtggaaaag tgcactaagc cttgcaaaga 960

ctctacaaag aaaaactctt ttaaaaagtt gctcagcatg aaactgtcca tctgtttcat 1020
gaagagtgc tttcaaaaat tttgggtccaa gagtagccaa ctcggagaca ccaccacagg 1080
ccacctctcc agtgggggagc agaaggggat tgaaagtgat tggcaaggct tgttggtagg 1140
agaggagaag agaagtaaac ccatcaaggc atattccaca gaaaactata gcctggaatc 1200
tcaaaagaag aggaagaagt ctcggggcca gaccagtgc gctaattggtc tgagagctga 1260
gtctttggat gaccaaagtc tctcccggga gtcattcatc caggcacctt acaagtctgt 1320
tacaagcctc tgtgcaccgg agtatgaaaa tatacgccat tatgaggaaa taccagagta 1380
cgagaacttg ccatttatta tggctatacg gaaaactcaa gagttggaat ggcagaattc 1440
cagcagcatg gaggacgctg atgcaaatgt gtatgaggta gaagagccgt atgaagctcc 1500
agatggccag ctgcagcttg gaccagaca tcagcattcc agttcaggag catcccagga 1560
ggaacagaat gatcttggtc ttggtgacct tccctctgat gaggaggaaa tcatcaacag 1620
ttctgatgaa gatgatgtca gctctgagtc aagtaaagga gagcctgacc cactggaaga 1680
taaacaggat gaagataatg gaatgaaaag taaagttcat catattgcca aggagatcat 1740
gagctcagag aaagtgtttg tggatgtgtt aaaacttttg catattgatt tccgggatgc 1800
agtagctcat gcttcaggc aacttgggaa accagtgatt gaggaccgga ttctaaatca 1860
gacccatac tacttgctc agctgtatga gctcaaccgg gatctcttga aggaactgga 1920
ggaaagaatg ttgcactgga ctgaacaaca aagaattgct gatattcttg taaagaaggg 1980
accatatcta aagatgtatt ccacatacat caaagaattt gataagaata tagccttgct 2040
ggatgaacag tgcaagaaaa atccaggttt tgctgctgtt gttagagaat ttgagatgag 2100
ccctcgctgt gctaactctg ccctcaagca ctacctgctc aagccggttc agaggatccc 2160
ccagtacagg ctgttgctga cagattattt gaagaatctc atagaagatg ctggagatta 2220
cagagacact caagatgccc ttgctgttgt tatagaggta gccaaccacg ccaatgacac 2280
catgaagcaa ggagacaact ttcagaaact tatgcaaatt cagtacagct taaatggaca 2340
ccatgaaatt gtgcagcctg gtcgggtttt tctcaaagaa ggaattctga tgaagctgtc 2400
tcggaaagtg atgcaacctc gaatgttttt cctgtttaat gatgccctgc tgtatacaac 2460
accagtgcag tctgggatgt ataaactgaa caacatgctc tctactggctg gaatgaaggt 2520
cagaaaacct acccaagaag cctatcagaa tgaattaaag attgaaagtg tagaacgttc 2580
cttcattctc tcagccagtt ctgccacaga aagggatgaa tggctagaag cgatttccag 2640
ggcaatagaa gagtatgcca agaaaagaat caccttctgt cctagtagga gtcttgatga 2700

ggcagactca gaaaataaag aagaagttag tcctcttgga tcgaaggctc ccatctggat 2760
tcctgatacc agagccacaa tgtgtatgat ctgcacaagc gaattcactc tcacctggag 2820
acgacaccac tgccgggcct gtggaaagat tgtatgcaa gcttgctcgt ctaataagta 2880
tggttagat tacctgaaaa atcaaccagc aagagtatgt gaacattgtt tccaagaact 2940
gcagaaatta gatcaccagc actcccctag gattggatct cctggaaatc acaaatctcc 3000
ttcaagtgcc ttatcatcag tcttacatag cattccatca gggaggaaac agaaaaaat 3060
cccagctgct ctcaaagaag tatcagcaaa cacagaggat tcttctatga gtggctactt 3120
gtacagatca aagggcaata aaaaaccctg gaaacacttt tggtttgtca taaaaataa 3180
agtactatat acatatgctg caagtgagga cgtggccgct ttggagagtc agcctttatt 3240
aggattcact gttattcaag ttaaagatga gaattccgag tctaaagtat ttcagttact 3300
gcacaaaaac atgttatttt atgtattcaa agcagaggat gctcattcgg ctcagaagtg 3360
gatagaagca tttcaggaag gcacaatatt gtagcagtat tggtttcac tcttctgtga 3420
ttccaaagag gtggaatttc atcagaatgg agtaaagca attcaaaaat tgtataaaaa 3480
tgaacactgc caagataaag ccaaccagac ccttcatcaa agaaattgtt ttgttaggta 3540
taagcaattt ttaaaagggtg tttgtttttt catttatgtt atttattaaa attttgatgt 3600
ttacttaatg gtcagaatta tttctgagac aactgaatt ctaaagtacc atttctttag 3660
agaccagaaa aactatctta atactgtata ctgtattaac tattcgtgac atagttcaca 3720
ctgttttctt accttacatt gtaacaatct tactgggtga aagtctttgt aaggaaaaaa 3780
cacatagcaa ggagcaaatt tccacaaagt gcttgggtta ggaattgtga ttattataaa 3840
actgctgatg aaaaaaatgc atgtctttga atcaataaac ttgggtgaat attcgt 3896

<210> 1728

<211> 4034

<212> DNA

<213> Homo sapiens

<400> 1728

tcggttaaga tggaggaatg ccgagtcata tacccttccc ccaaaattaa atatttgaag 60

ggatatgtct tatTTTTttt ctgggataga atgtTTTTca ttttcatgtt actgaagtgt 120
agttttacta aactactaaa tcggagactg ctaagcacct tccctgtgcc aggcacagca 180
ctgggtaggg tgagggccct gggagtaaat attctgggac aggcacaggg ggtgtacagg 240
gaaagagtct ttcctctctg tggcatctgg gaggcTTtag gatgtgggaa agatggtctc 300
ctcatctcag ttgcccctca ttttcaggca gacacgtatg aaatgattac actcccctga 360
aagatcagct tctacataat tcaagatcat cctcaatctc tctcatcaga gaggaagaaa 420
agccgcatga attatttaca gaacactaag ttatttccct ttatgagctc caactttgtt 480
tttgtctctg caaactgaga ttttgtttat ccatgaatag tttccccagg ggcataaaaa 540
atatgactct taaattatga atgaggTTTT ttgtttcagt ccatgttaac taaaacatgc 600
aaaataaact atgtTTTTca ttagatccct ttcagctccc tgcaaaaaaca gaaccaataa 660
aagaacgagc agttcaacca gcaccacca ggaagccac tgtaattcga attccagcca 720
aaccaggaaa atgtttacat gaggatccac aaagtccacc tcctctccct gctgaaaaac 780
ctattggaaa cactttcagt acagtatctg gaaagctcag taatgttgag agaactagaa 840
acttggaaac caaccacca ggtcaaacag gaggttttgt gcgagtacc ccaaggttgc 900
caccgagacc tgtgaatgga aaaaccattc caactcaaca gcctccaacc aaggtgcccc 960
ctgagagacc acctccccca aagctttctg caaccagaag atctaataag aaactgcctt 1020
ttaatcgatc ctcttctgac atggatcttc agaaaaaaca aagtaacttg gcaactggac 1080
tctcaaaagc caagagtcaa gtttttaaaa atcaagatcc ggtgctacc cctcgtecca 1140
aaccaggaca ccctctctac agtaaataca tgcgtgggga tgtacttgtg atgctgaagc 1200
agacggaaaa taattacttg gagtgccaaa agggagaaga cactggcaga gttcacctgt 1260
ctcaaatgaa gattatcact ccacttgatg aacatcttag aagcagacca aacgatccaa 1320
gccacgctca gaagcctgtt gacagtgggtg ctcctcatgc tgcgttctt catgatttcc 1380
cagcagagca agttgatgat ttgaacctca cttctggaga aattgtttat cttctggaga 1440
agatagatac agattggtac agagggaact gtagaaacca gattggcata tttcctgcca 1500
actatgtcaa agtgattatt gatatcccag aaggaggaaa tgggaaaaga gaatgtgttt 1560
catctcattg tgttaaaggc tcaagatgtg ttgctcggtt tgaatatatt ggagagcaga 1620
aggatgagtt gagtttctca gagggagaaa ttattattct taaagagtat gtgaatgagg 1680
aatgggccag aggagaagtt cgaggcagaa ctgggatttt cccctgaac tttgtggagc 1740
ctgttgagga ttatcccacc tctggtgcaa atgttttaag cacaaaggta ccactgaaaa 1800

ccaaaaaaga agattctggc tcaaactctc aggttaacag tcttccggca gaatggtgtg 1860
aagctcttca cagttttaca gcagagacca gtgatgactt atcattcaag aggggagacc 1920
ggatccagat tctggaacgt ctggattctg actggtgcag gggcagactg caggacaggg 1980
aggggatctt cccagcagtg tttgtgaggc cctgcccagc tgaggcaaaa agtatgttgg 2040
ccatagtacc gaaggggagg aaggccaaag ccttatatga tttccgaggg gagaatgaag 2100
atgaactttc cttcaaggct ggagatataa taacagagct ggaatctgta gatgatgact 2160
ggatgagtgg agaacttatg ggaaaatctg gaatatttcc caaaaactac atacagtttc 2220
tacagatcag ctagaggaga agcttgtctg tgttccittg cacaagaact cacttgaact 2280
atcaccttga ctatcagata tgtttttgca ctattttttt taactgaaaa agaaatatct 2340
aagctgtaca tggtagacta gaattttctg aaagcagaaa acgttcagat tttgtagtta 2400
attttcatta caatagaaac atgcacatgg aaacccatga gctaggattc taccgaggaa 2460
aacatctagt gggattagca aggtgaaggg aaagcatctg gtggcatggc agcatgggga 2520
ggctcacaca cagaagttgc acgtggacat ctgttttaat cagcacaagt gaattaacca 2580
tgcttcttca tttttttact ttagttaaaa aagaggacat ttaatattct acatgctgta 2640
actatcagga catggttagc aatctcaatt tcatttttga tattcaaatt aattcttaca 2700
gcttgagcat atcagcctta ttaccagagc aaatccttcc ttcagatggg atagtttact 2760
gactagttag agcatttgta agcacatggg gaaatcagcc cctgcccacc aaaataatct 2820
ttatgttacc aagtattcc catttgtcta aggatttgaa gggggtctaa attggatgta 2880
tcttagtcta aagaacaaa accatccctg aaatgccttg ctaatacaac taatccttcc 2940
atatatgtgc catacttatt tttttcctca gtgtatactt tatgttaaca gggttattac 3000
aaagcacatt ttctgaatct gcaatcattc ctttgacaat tactggacc aaaggaaaat 3060
tcattttctt tgcattattc cagtaatata taaaaactgt gtcttggtat agtagtacat 3120
tatgaatcac atataaaatc ttacaatata gaacaactgt taagatggaa aacagtgcc 3180
aacctccaca gctcatttct ttgtaatata atcagaatga aaaataattt aagaggacag 3240
aagactggta cttttttgtt ttattttttc tctagcttat ccctgcacaa ttattagagt 3300
gaatgaaaaa ccactttcct gctttccatt gttataaatt ctaagcttaa gataaaagt 3360
gttctttaca tgactgaatc aattacaatt tatgggctag agccaaatag gttgaagaca 3420
atcatccaaa cagatcaatg gaatagaatt tcattggaaa tgtaaaacac tttccaaca 3480
atggatcatga ctttcttctg tttttgagaa gagtttcata tgctggacca cattttagct 3540

tttattgttt tttttttccc attgtccaaa aagttaagca acaagtggcc acacttttac 3600
 gtgactacaa cctgggggttc tgcaaagaag gtaatatatta cttgggtcttt gactaaagtt 3660
 atctcccccatt tctatgggta ctttttattt tggactatgg ggacttctaa tacgttttgg 3720
 taaagaagag agtataaaga aaattcttgt caaatctcac tcaaaagtaa tttcatgaga 3780
 aatcaatgat ttaaagcatt atccaaatta aattatcatt tgcagcaaac tgtacaacag 3840
 caggaaggat atggaatgga acatgaggta tatatctttg cttttataat tttaacatct 3900
 tatattgaag attctgaaaa cctatcttta ttagaggaaa atctcaatct tcagttttgg 3960
 ctttctgtca ccagaatgat aagtgcataa gttgtaaata tacttgacac tgtaataaac 4020
 tgaactgaac tttc 4034

<210> 1729

<211> 4209

<212> DNA

<213> Homo sapiens

<400> 1729

attgtttctc tctgctgccg gagctccagg tctacccttc actgctctgt gtcctcagcg 60
 tgtgtggcctt cgtgacctga agatactggg aaatccatag ctaagatgcc aggaccccct 120
 gaaagcctag acatgttata tgttctcatt ttgctgaaga cttttgcca gggccaggca 180
 ttaaagattc ttttcaaaaa gtgatactga gagaatatgt aaaatgtgga cataaggatt 240
 tacagttaag aaaatgatgt aaaagtatga atgagtgtaa tgtgcacaaa gaaggttata 300
 atgaactaaa ccagtatttg acaactaccc agagcaaaat atttcaatgt gataaatatg 360
 tgaaagtctt tcataaactt ttaaattcaa atagacataa cacaaaacat actggaaaga 420
 aacctttcaa atgtaaaaaa tgtggcaaat catcttgcac gcttttacac ctatgtcagc 480
 ataaaagaat tcatattaga gagaattctt accgatgtga agaattgtggc aaagccttta 540
 tctgggttttc aacccttact agacacagga gagttcatac tggagagaaa tcctacaaat 600
 atgaatgtgg caaatctttt aaccaggact caaaccttac tacacataag agaattcata 660
 ctggacagaa accctacaaa tgtgaagaat gtggcacatc tttctaccaa ttctcatacc 720

ttactaggca taagctaatt catactagag agaaacccta taaatgtgaa caatatggca 780
aaacttttaa ccaatcttca acccttattg gacataagat aattcataat ggagaaaaac 840
cctataaatg tgaagaatgt ggcaaagccc ttagtatttt ctcaaccctt actaaacata 900
agataattca cactgaagag aaatcccaca gatgtgaaga atattgtaaa gcttataagg 960
agtcctcaca ccttactaca cataaaagaa ttcatactgg agagaaaccc tacaatgtg 1020
aagaatgtgg caaagccttt agtattttct caacccttac taaacataag ataattcaca 1080
ctgaagagaa atcccacaga tgtgaagaat gtggcaaagc ttataaggag tcttcacacg 1140
ttactacaca taaaagaatt catactggag agaaacccta caaatgtgaa gaatgtggca 1200
aaaccttttag tgtattctca attcttacta aacataaaat aattcataca gaagagaaac 1260
cctacaaatg tgaagaatgt ggcaaagctt ttaaaccgatc ttcaaccctt actaaacata 1320
ggataattca tactgaagag aaaccctaca aatgtgaaga atgtggcaaa gcttttaacc 1380
aatcttcaac ccttagtata cataaaataa ttcatactgg agaaaaaccc tacaatgtg 1440
aagaatgtgg caaagctttt aaacgatctt caacccttac tatacataaa atgattcaca 1500
ctggagaaaa accctacaaa tgtgaagaat gtggcaaagc ttttaatcgg tcctcacacc 1560
ttactacaca taagagaatt catactggac acaaacccta caaatgtaaa gaatgtggca 1620
aatccttttag tgtattctca acccttacta aacacaagat aattcatact gataagaaac 1680
cctacaaatg tgaagaatgt ggcaaagctt ttaaccgatc ttcaatcctt agtatacata 1740
agaaaattca tactggagaa aaaccctaca aatgtgaaga atgtggcaaa gcttttaagc 1800
ggtcctcaca cctcgctggg cacaagcaaa ttcatagtgt acaaaaaccc tacaatgtg 1860
aagaatgtgg caaagccttt agtatattct caacccttac taaacataag ataattcata 1920
ctgaagagaa accctacaaa tgtgaaaaat gtggcaaaac tttctaccga ttctcaaacc 1980
ttaatacgca taagataatt catactggag agaaaccttg caaatgtgaa gaatgtggca 2040
aagcttttaa ccattcctca aaccttatta aacataagct aattcatact ggagacaaac 2100
cctacaaatg tgaagcatgt ggcaaagctt ttaggcggtc ttcacatctt agtagacata 2160
agataattca tattggaatt catactgaag agactgtaca aaagtgaaga atgtggcaaa 2220
ggcctttact gctcctattc ccttactaaa gaatgtggca aagcttttca ccagtacttt 2280
acccttaata cacataagat aattaatgct ggagagaaac cctacaaatg tgaagaatgt 2340
ggcaaagatt tctattgatt ctcatacctt actaaatata agataattca tattggagag 2400
aaattctaca gatgtgaaga atgtggcaaa ggctttaatt agttctcatc ccttactaaa 2460

cataagagaa ttcataccat agagaaatcc tacaaatatg aagaatgtga caaagctttt 2520
aaccacttct caaccctgcc tacacgtaag ataattcata ctggaaggaa accctacaaa 2580
tatgaggaat gtctcaaagc tttttactga ttcttatacc ttactaaaca taaaataatt 2640
cataaaggag ataaattata caaatgtgaa gaatgtggca aagcttttaa caaatcctca 2700
tccattagta aacataagat aattcatact ggagagaaaa cctacaaatg tgaggaatgt 2760
ggcaaagcct ttagcctgcc cctccaattt actgcacata agataattta tactggagag 2820
aagccctaca aatgtgaaaa atgtggcaaa ccttttaacc aatcctcaac cttactaca 2880
cattagataa ttcattgctgg agagaaaccc tacaaatgtg aaaaatgtgg caaagctttt 2940
aaccaatttt caaaccttac taaacataag ataactcata ctggagaaaa atcttacaaa 3000
tgtgaagaat gtggcaaagc ctttatccag tcctcaactc ctagtaaaca taattaatga 3060
tggagagaaa ccatacaact gtgaagaatg tggcaaagct tttaaccagt cctcaaactt 3120
tattgaacaa aataattcat acaggagaga aaccctacaa atgtgaagaa tgtgacaaag 3180
cctttaacca gtcctcaatt ttactaaac ataagaaaat tcatactgga gagaaaccct 3240
atgattgtga aaaatatggc aaaggcttta actagtcctc agttcttaac acacatacga 3300
taattcttac tgcagagaaa ctctacaaac cagtaagatg tgacagtgtc tctgacaaca 3360
tctcaaactt ttctaattcat aaaagaaatc atattggtga gaaatcctag aaatgtggag 3420
aatgtaacaa agtattttaa tggttgtcac acttgattat aggtaatatt catattggaa 3480
aaatttccta caagtaagaa caatgtggca aagtttttaa ctaatacacc ttattgcaca 3540
gaaaatcatt tatatttgag aaaaattgta gaaatataga ctgtgaaaaa gacgtcaata 3600
tctgctcaca tcttactaaa caccagagag ttcattgctta ataaaagcat gataagtgc 3660
attactgcca aaagatcttt cagaaaatat taccctttaa agtgaaggag agtatttata 3720
ttaaagatga acattacaac cataaaggagg gttgaagtac ctttacttgt atcagatctt 3780
attgtccaca ttttgtacta cagaaaaact ctgaagaggt cactcaaact ttgttcaaca 3840
tcagggaatt tatattggag agctgtcttg caaatgtaat aaatttggga aaacaaattt 3900
tcaaaaacta cagcttagaa aacaccagag ttatatacga aatatatttt caaagggtgta 3960
gtaaaaataa aaaaaatttt aatccaaatt tgtctatgta aataccagaa tttatagtag 4020
aaatatatga ggaagcgaca cttcgaatat tctactaaat gagagttctg agtatagaaa 4080
ataaaaactaa agttggtaga aaaattattt gtatataatg ttaagaggag taaaagattt 4140
tttgtagaat aataactata ttcagattat actttgtttc ttgaaaaaat tacagatttt 4200

ttgaaaagc

4209

<210> 1730

<211> 3540

<212> DNA

<213> Homo sapiens

<400> 1730

actaccaga gggctgccgc cgcctctcca agttcttgtg gccccgcgg tgcggagtat	60
ggggcgctga tggccatgga gggctactgg cgcttctctgg cgctgctggg gtcggcactg	120
ctcgctcggt tcctgtcggt gatcttcgcc ctcgtctggg tcctccacta ccgagagggg	180
cttggtctggg atgggagcgc actagagttt aactggcacc cagtgtcat ggtcaccggc	240
ttcgtcttca tccagggcat cgcttctttc aggtttttca gtctttctgc ttccatgggc	300
tccgctttct ctccgagcat ttctcatgcc catacatgtt tattctggaa ttgtcatctt	360
tggaacagtg attgcaacag cacttatggg attgacagag aaactgattt tttccctgag	420
agatcctgca tacagtacat tcccgccaga aggtgttttc gtaaatacgc ttggccttct	480
gatcctgggtg ttcggggccc tcattttttg gatagtcacc agaccgcaat ggaaacgtcc	540
taaggagcca aattctacca ttcttcatcc aaatggaggc actgaacagg gagcaagagg	600
ttccatgcca gcctactctg gcaacaacat ggacaaatca gattcagagt taaacaatga	660
agtagcagca aggaaaagaa acttagctct ggatgaggct gggcagagat ctacatgta	720
aaatgttgta gagatagagc catataacgt cacgtttcaa aactagctct acagttttgc	780
ttctcctatt agccatatga taattgggct atgtagtatc aatatttact ttaatcacia	840
aggatgggtt cttgaaataa tttgtattga ttgaggccta tgaactgacc tgaattggaa	900
aggatgtgat taatataaat aatagcagat ataaattgtg gttatgttac ctttatcttg	960
ttgaggacca caacattagc acgggtgcctt gtgcagaata gatactcaat atgtgaatat	1020
gtgtctacta gtagttaatt ggataaactg gcagcatccc tggcctgttg tcatgcagtc	1080
atttcctgtt aattctggga gacaatgatt tcacaactag agggaagcag tcctaaaagt	1140
ttaaaatccg ataaggaata tctgggacag ggtttagatc atgactctac acagatacca	1200

tgatgagagt atattaaaga aatttaggaa agcacctggt tcctttctcc ccatgcctgc 1260
cttctgctcc ctccccagct gggttgggct caaattgtcc ctggagacta gggtttatgt 1320
tagggtattg atagattaga gcaggtgggt gaagagatct tctctgggtca gacttgaag 1380
aatttccaaa actgaagtta gcccgaagac ttccctaggg ttgatgtact ttatgatcca 1440
gatgctaaac ttcttagaat gaaattatgc ttcaacactt aagtagcata cactgcccta 1500
caaacctcag agagcacttt tcccgaagt cttgttttta tttttgaaag tactcacaca 1560
gcacttacta tgctccaaac actcctctaa gcactttaca catattagct cattcagtcc 1620
ccagacagac gggatgaagt aggtattgtt actgttccca ttttacaggt gagagatttg 1680
aagcctgggg aggctagtaa ctaccccaa ggccacacgg ctcatatg gtgggactga 1740
gactcagatg caggcagtct ggcacctcag tctggattct aaccatttca ctaagctatt 1800
tttgtcttgt actactttga cccaccctg aataaacctc aattgctgga gtgggggtga 1860
gttattaaag ggatgctttt taccttttgc tgtctgctgt ggcagattcc ccagataacc 1920
aaggaaaagg ggccacccat acctggaaat aggccatagg gccctacta ctgccaacaa 1980
gccatggcct acctgacaa ttgtttgatc ttaaaattgt gtcttggtta caaaagattt 2040
ggacaggcat atctgtagct ttcaagttaa ttaattgcaa tatttttttc ttcaggattt 2100
tagctgctga acaactttca gtttggagct aaaagagacc tgtctcatgg tctgcccttc 2160
cctggggcaa tagctagggt ctttcctgat ttttatggaa ttttagggga tattttgaac 2220
ttgggttctc agtagtgaat tgagacttgg aggtgacttt tcatgtttgg agtatcatct 2280
ctgtctggga tctgggctga caaattaaaa cctagagtag tgcttatgct gaaatgatac 2340
ttttcatttt ttggttgatt tttttgcctt ccttcaatt ttaaaactgaa gcattttaat 2400
gtgggtagaa actctacacc aaatacacta aacattttgg tgcttagtgg atttcttttt 2460
aggtaactgg tacttacttc caaagactga atacaagcca cactccatca tatcccttaa 2520
acttcatgaa aaaccattca agatcccctt gctgcaacac tgttctcttc ttcttacta 2580
aattctattt ccaaattgg taatagagcc agaaggatcc ccagtacca gccctctgcc 2640
tggcacaaac tggtagcaca attaaattca gtatgggtgg agcatggtac agtcttgggtg 2700
ccatagaagg agtagttgca tagtcacaca tcatctgata agttggatgt tccattacat 2760
agaggaacac aaaattccag gggtttttgga ggaagggatt agatagtac taagccgcca 2820
gaattgaggt ggccattcct ttttgtatag gctaagaaac aggttatcag tgaaaagtta 2880
attatggctt tggcactaga atagcactgt tgcaaagtat ttaagcacc ccatctcag 2940

ccctttatatt tatctttcat gtgggctaatt gtgaggataa tcttacagat attataggaa 3000
 tttctttttct atctttatga aaacaacgta tataaaatat atctagaaaa cttttgtttg 3060
 agactcttat ttaatgggct tttgattcta atgataattg tacctttatc tttcaaaagc 3120
 tgatatttcc tacctaagca tctcccgaga aaaatatctc attaaaaagc ccataaataa 3180
 taggggagaa gaaagcctta ggtatcaatt ccaaaacagt gattgaaatt tcccaaaata 3240
 attatggcctt ctgtcatctc cagagataat ctggcttggg ttaccccata atctaatttc 3300
 agaaaagaaa gctttatatt aacactcatc tgaatcaaca ttaaagcctt ttctctcaaa 3360
 gcgtttattg agaaactcaa atgaatatac tttttgaatt actgtcatca aaagtgtacg 3420
 gcttcccggtg ctgcttgtgt caaatggaac ctgccctcta aagcactttc tttcctttac 3480
 ttgcgtgggtt tcatgtaagc tgtgctgttt agaaacaaca tctcagactt tacaaaaaag 3540

<210> 1731

<211> 4135

<212> DNA

<213> Homo sapiens

<400> 1731

gttttttttt tttttgagac agagtctagc tctgtcacc atgctagagt gcagtgggtg 60
 gatctctgct cactgcaacc tctgcttcct ggattcaagc aattcttctg cctcagcctc 120
 ccaagtagct gggagtacag gctcccgcca ccacacctgg ctaatttttg tatttttagt 180
 agagatgggg tttcgccatg ttggcgaggc tgggtctcaaa cttctgacct cagatgatcc 240
 gctcacctct acctcccaa ctgctgggat tataggcgtg aaccaccgcg cccagcctaa 300
 aagtcttgct tcatgtttat catgtgttac aaatggcacc tgctaaaata accctgggga 360
 aaacaaataa aggcattttg aaagggatac tttttaatca ttgtcatcaa taccatgtag 420
 aaatgtgatc tgcactggct tagaaagtga cttcttctcc actacttttt cttgtttttc 480
 cacatgttgc ctccatacac aagtagaact tgtcaggagc tattgcaaag ctccatgact 540
 tcgcaccttt gcccatcagc tgacagatat ttttaaacat tcaatttttg agggcaagga 600
 ctggtgtgtc cttttccaat agagacccaa gcagttgggtg ttcttagaaa gtataagcca 660

ctggtagtta atatcatgta taaatggatt gatggcaatc tccccttctc tcctccctct 720
ttcttctcct cctgatggca ttctcagtt taacaggcgt catcattgtc gccgctgtgg 780
ccggctagtg tgcagctcct gctccactaa gaaaatgggtg gttgaaggct gcagagagaa 840
ccctgctcgt gtgtgtgatc agtgctatag ttactgcaac aaagatgtac cagaggagcc 900
ttcagaaaaa ccagaagctc tagacagctc caagagtgaag agccctccat actcgtttgt 960
ggtgagagtc cccaaagcag atgagggtgga atggattttg gatctcaaag aggaggaaaa 1020
tgagctgggtg cggagtgaat ttactatga gcaggccccc agcgcctcct tgtgcattgc 1080
catcctgaat ctgcaccggg acagcattgc ctgtgggtcac cagctgattg agcactgctg 1140
caggctctcc aagggcctca ccaaccaga ggtggatgcc gggctgctca cggacatcat 1200
gaagcagctg ctgttcagcg ccaagatgat gtctgtcaaa gccggccaga gccaagactt 1260
ggctctttgt gacagctaca tcagcaaggt agatgtgctg aatatttttag ttgctgctgc 1320
ctatcgccac gtgccatctt tggatcagat cttgcagcca gctgcagtaa ccaggctaag 1380
gaaccagctt ttggaagccg agtactacca actgggcgtt gaggtctcca caaagactgg 1440
gcttgatacc accggggcgt ggcatgcttg gggcatggcc tgcctcaaag ccgggaacct 1500
cactgctgca cgggagaagt tcagtcgctg tctgaagccc ccatttgacc tcaatcagct 1560
gaatcatggc tcaagactgg tgcaggatgt ggttgagtac ctagagtcca cagtgaggcc 1620
ctttgtatcc ttgcaagatg acgattactt tgccaccctg agggaactgg aagctaccct 1680
tcggacgcag agcctttctc tggcagtgat tcctgaaggg aaaatcatga acaacaccta 1740
ctaccaggaa tgcctcttct acctgcacaa ctatagcacc aacctggcca tcatcagctt 1800
ctacgtgagg cacagctgcc tgcgggaagc tcttctgcac cttctcaaca aggagagtcc 1860
tccagaagtt tttatagaag gcattttcca accaagctat aaaagtggga agctacacac 1920
tttgaggaaac ttgctagaat ccattgatcc aaccttgag agctggggaa agtacttgat 1980
tgctgcctgc caacatttac agaagaagaa ctactaccac attctgtatg agctgcagca 2040
gtttatgaag gaccaagttc gggccgccat gacctgtatt cggttcttca gtcacaaagc 2100
aaagtcatat acagaactgg gagagaagct ctcatggcta cttaaggcca aggaccacct 2160
gaagatctac ctccaagaaa catccgcag ctctggaagg aagaaaacca cattcttcag 2220
aaagaagatg actgcagctg atgtgtcaag gcacatgaac acacttcagc tgcagatgga 2280
agtgaccagg ttcttgcatc ggtgcgaaag tgctgggacc tctcaaatca ccactttgcc 2340
tctgccaacc ctgtttggaa ataaccacat gaaaatggat gttgcctgca aggtcatgct 2400

gggagggaaa aatgtagaag atggttttgg aattgctttc cgtgttctgc aggacttcca 2460
gctggatgct gccatgacct actgcagagc tgcccgccag ttggtggaga aagagaagta 2520
cagtgagatc cagcaactgc tcaaattgtgt cagtgagtca ggcatggcag ccaaaagtga 2580
cggggacacc atcctcctca actgcctgga agcgttcaag agaattccgc cccaggagct 2640
ggagggcctg atccaggcaa tacacaatga tgacaacaag atagtgccaa tcttggcagc 2700
attgaggggac agagttcaca ccgaagagag aggacgttcc cctagcactt tgtgctaatt 2760
ggtattttaa aattcatgaa tcaagtgagc caaaagctta aagaaggaga aaaacgatcc 2820
agatctccat ggcataacca acagcgacag tcttctttta aagctttcag aaagctgcaa 2880
agttttcatg gaaaagcggc acacgagtat aaaataaagc cagaaaagca actcttccca 2940
acacataagt ttgtactgta agtttcttta acaaagcaac ggcatttctgt ttgcaggccc 3000
aaccctaaacc tggattgcat catcaggcac aaactcagct tctcaggatg aacagcccag 3060
cgagtccggc acctcccatg cacacaggtg gtggagagaa ccgcattgcc ttcacacacc 3120
tgaagtactt gccgtcagg ggctccaggc cctcagccag ggcgcagtgc aggctggtct 3180
gcgccccctc ccgtgccgtc ttgacaaagg gggagaagag ccgccagagc aggagagca 3240
gggaggagtg ccggaccagc tcagagcgga cgacgcctgg gtgcactgcg cattctggaa 3300
gtgaagatca ttgttcccaa actctggctt attcactgta acaaatggac ccctagatcc 3360
gcagatgtca gagccagcag ctcacccagt gctccaggag agcacagaat cattaaggaa 3420
taagaaccag cctgacctga ttttacagct gagaagatga agtcaggga ggttaaagg 3480
gcacatccac atccacatcc acatgcggct agcatgtggt agagcaagaa cttggaccca 3540
ggggtctgaa atccagccct aactccctga gtccaggcag tggcagctct gtagctcaga 3600
tcacatgtg gacctagca aatggcacc agaaggaagc accctaggtt taaagctgag 3660
caccacatt ccggttctga cgccctcacc tgccatatac tctttagctg gccatttct 3720
tggacctcag ctctgtctta taaactagga gtaataatac ctgttacaa aggctcttc 3780
tgccagatca cctgaggta ggagtttgag accaacctgg acaacatggt gaaagctcgt 3840
ctcttctaaa aatacaaaat tagccaggcg tgatattgcg tgcttgtaat cccaactact 3900
caagaggctg atgcaggaga atcacttgaa cccaggaggc agaggtcgca gtgagccaag 3960
atgcactac tgcactccag cctgggcgac aagagcgaaa ctcaagtctc aaaaaaaaaa 4020
aaacaaaaaa aaaaaaagc ctctgtctgt tgcaaaaagc tactgtgaaa atcaaatgag 4080
ataagagata agatgtgaca caaatacaag gtaacttttt gaggttctta acccc 4135

<210> 1732

<211> 3570

<212> DNA

<213> Homo sapiens

<400> 1732

acaaaacaaa	acaaaacaaa	agaaatacac	acaggcagcc	gggtgcagtg	gctcacgcct	60
gtaatcccag	cactttcaga	ggctgagcgg	gcagatcatc	tgaggtcagg	agttcaagac	120
cagcctggcc	aacatggtga	aaccccgctc	ctactaaaaa	tacaaaaaat	tagctgggcg	180
tggtggcggg	cgcctgtagt	cccagctact	cgggaggctg	aggcaggaga	actgcttgaa	240
cccgggaggc	ggaggttgca	gtgagccgag	atggtgccat	tgactccag	cccaggactc	300
tatctccaaa	aaaaaaagaa	aggaagaaaa	ataagcacag	gcatgtgtgg	agacctggag	360
gcagggctgc	ccctcacgaa	ccatccacaa	tgccaaggaa	accagaagca	aacgtccagc	420
agcagggagc	gcagggcatg	tgaaacccgac	actgaggaaa	cagccacggg	agagagcaca	480
cagggagaaa	ggaaggctcg	ggcactccct	tgctgtggtt	caggcctgtt	ctaccacccc	540
tggggctacc	atcgcccacg	gaccttcctg	ctgggtgcct	gtagcacggc	acctcctgac	600
aggtcaggtt	taagggaagt	ttgctggata	actaaaatga	ggctgggggg	aggagggagc	660
agggaggagc	tagcccacag	gagccaatgc	aggcctgacc	ccactggtgc	cggactgact	720
cagggagagt	cattagggct	gctttctcag	gctggatgag	cactgggggt	tgggggcttg	780
ccctggccca	ccccaccact	caggaaacct	tcctcagca	ggacctgccc	tgcacagatc	840
atgggcagcc	tcctctgct	ccccacttcc	acagccccag	actccatctc	aaccgcagcc	900
aggagtcact	gctaacacca	caaaggacct	gttcctgcac	cagcacgggc	cagctctggg	960
ggcaggtgcc	caggacagag	tcacgagtgg	caagcagaca	ataaacaaca	ggcaagatgg	1020
acagactgat	tgccgggagg	atgtggcagg	aggcactgga	acggtggtgg	aggaacccca	1080
gccctgggga	cagacctcca	cccgtgcaca	gacctccaag	ctggagcctg	ctctggaaca	1140
ctaagggcag	cagcagaggt	tgaagagggg	cagacgcagg	aacgttgggg	acacgctcgg	1200
ggaacagtga	gaaaagccct	aggctggggc	agaggaagtc	ctcgatggca	caagcatcag	1260

gacacaaagt gcaagaaatg tgcctaagac aagaggcagt tccagggcag accggggccc 1320
ctggagaagg gtgctgcaat ctatcctcac tgcctggagc ttccctcctg tcccttggtta 1380
accacaccaa agaaagataa caacagtctc tgcctcgtgg gacacagcga gggccaccgt 1440
gcccagccca ccgtctgtgc acagggcagg cccagatggc tgctgccacc aacctgtgtc 1500
atccaggagt gcctttctca agagctctca gtgcttatct agcgttggcc tgccccacct 1560
cgggttaa at caaaacctct ttggtggctg ggcgcggtgg ctcacgcctg taatcccacg 1620
gaggccgagg cgggcagatc acctgaggtc aggagttgga gaccagcctg gacaacctga 1680
caaaatacct ctctactaaa aatacaaaaa aaattagccg ggcgtggtgg cgcacacctg 1740
taattccagc tactcgggag gctgaggcag gagaattgct tgaactgagc tcgggaaagg 1800
gaggttgtag tgagccgaga tcgagccact gcactccagc ctgggcgaca gagttagact 1860
ccatctcaaa acaaaaaaac aacgcctctt tggaaccagc agaggaacag actcaggccc 1920
tattagactc cagccatgca aagtctctag tcaactgcca ctgggagggt gtggacctga 1980
agggacgcag ggccagggga aagctctttc tgctcagcag ctccctggaga ggagcgaccc 2040
tgtgccggga cacccttccc cctgcggcat ccagcgcagc ccatctctga gggagtcctg 2100
gctcacagcg tttctgacag gagtcacagc ctgaaccagc gcaagaggcg cctgagtggg 2160
aacaaccctt tcctggggac cccgcgggct ccccaaggga cacttcagac ccggaaggga 2220
ggggcagcgc ccagagcgcc ctcttgacgc cccgggact gcgtggccac cgccccctga 2280
cggccacggc cccaaaggcg ccgcgcaggg cccggctccc agaggggcca ctcggggtga 2340
cgaaccgggg tgggggcggg ttctctccgc tgcacccca caacttccc acttcatgct 2400
cttgcaaagc ccccgagag gctcgaagg gccacgcgcg tgcgaggcaa tccgaaggca 2460
ccgtgcgccg cagcacctcc aaatcctaag ccctggcctc gcgggtcggg cagggccaca 2520
ccccgagccg acaacataga ccaactcgca cagtcgagca ggcacacagc ccgccgggcg 2580
ctcgaggccg agggccccac ccaccggggg cagagaccaa ggtcaacgt gggggtgcgc 2640
accggactc cttccccgag ccccgaggag cctgccggct tgggcccagg ccgtcctccc 2700
ggccgcttca agcccgcggg gtccacccg gcacgtggga gaacggggcg ccgccgcctg 2760
gcctccggga gtgggggact tgggctcgcg gcggggacgg accaccgcc cagctcggcc 2820
ggatctgcag ccccttccc ctcgccagt gagtggaggc gaggccacg cctaccggtc 2880
ctcgcacgcg gtctcgcttt tctcagcctg ccggcctggt gtgtctcggg ccgtaggtgg 2940
cgacgtgggc gaaggatcag cgtccgcgcg ggccgggggc gcagccatgg cgctcggagg 3000

cctcttttgcg ggcctggccg ggcggcgcgcg atgggcccgcg gggagctggc gggtcctct 3060
cttgcaccacc gcggactaca agccccacaa ggccgcgcgt cgcggactac aagccccaca 3120
aggccgcgcg tcgcggacta caagccccac aaggccgcgc gtcgcggact acaagcccca 3180
caaggccgcg cggcgggcat gggggaccgc tagttcggca gcctccgcca cgtgcctgga 3240
gggccccgcg ccctgttttt caccacaaac tgagccgcac aaaaaccctg gaaaaaatc 3300
aataaacatt tatttgatac agtcatttta atacatacag tgatggcccg tccccacgcc 3360
actcgggacc agggcgcggg gcggggacga ggaccgggga cagatggtca caaggcgggc 3420
ggggcccga ctcaccgttg aaacatctcg caaataaaca cttttagat agaatatata 3480
tgtatatata tatggttaca agtgatagct ggaacctctt tcaaatgca cttatgtact 3540
gagaactggc attaaaaaac ccaaccaag 3570

<210> 1733

<211> 3297

<212> DNA

<213> Homo sapiens

<400> 1733

gcataatctc tgctggtcca caaacaggat cacatacatt tacagttttt aaaagatgtt 60
ggttctcctt ttattacata ctatttgatc cctttaaaact ccagtgttct catctacaat 120
atggccta atgatgataa agataacatg ctagaagtga attttctttc ttgtaaatga 180
aaaacatagt tttaaatttc caattgcaac tgaagggcct gatttggcat ttctcaatgt 240
cttactctta gtttagaata ggttgcaatt attgttcttt ttagccatg acaccaagtt 300
attcatctat agcagctttt ctcttttttt ttgagacaga gtctcgctct gtcgaccagg 360
ctggagtcca acggcccgat ctcggttcac ttcaacctct gcctcctggg ttcgggcggt 420
tctcctgcct cagccttccg agtggtcggg attacaggcg cgtacgacca cgcccagctg 480
gtttttgtat ttttagtaga gatgaggttt cgaggtttca ccatgttgcc caggctggtt 540
ttgaacttct gggctcgggc ggtctgccct cctcggcctc caaaacggt cggattatag 600
gcgtgaacca ccgcaccag ccgcctggaa tttttaagcc tcaagtttgt tccactttga 660

atgcaagaag ccacctgctc ctctttctgt catcaattta attgtttata aattggggct 720
aataacgatt tccttaggcc actatattct ttaccagct agttccaagt tgttttgtgt 780
gtgtgtgttt tgtttttgtt tttgttgggt tttttttgtt tttgtttttg ttttgagatg 840
gtgtctcgct ccagcctgga caacacagtg agattctgtc tcaaaataaa taaataaata 900
aacccaagca gaaaaagaat cactctgaaa acgatcacat ctaactatca atgctcatac 960
agtttatgga attatcagcc caacttgata aaatcagtat ttgaggaaac tgtggataag 1020
ccccctgatt tcaatcccca ttgtgccagg tcctgggttaa ctgagggttaa cgaagtaaag 1080
agctgcagac actattaact gctaccttaa accgattact ctagcttagc ctactttcca 1140
cgtacagatt ttaccagtgg acaacatgat gctttatctt gtttttctct ccctgggact 1200
tttctccaga cattgaaaac agaaatacta ataaggccac ttttacctgc ctgatgcaag 1260
aacagaattt tcaaaactcaa cattaatgca actcctcagt ccctgacaat ggcgggtgga 1320
aaagtttcta aaaatatgca gcagcacaat tatcggggaag agatgagata ctgttaccta 1380
ataaaaatgc cataaataga gaatgatgaa ctaccatggg aaatgaatgc atagaagagg 1440
acatgctgga atgtgggaca gtaaaaatca cttaaacttt gcgtgacctt gaagaaagtc 1500
acgatgatct gtttttccag gtccctcaaa cagtgagatg tggctgtttc ccaagtcttc 1560
ctctccagtg taaaggtctt gaatttagac gctttgtgag tcttccttct ttcgacagcc 1620
tggagtctct cttgagtctc aaggctgcct gagttcctct ctaacatcct ctaggcagta 1680
tcagctaatz agacaatzaa ttccatggag gcagcagtgga gaacagaagt acctctcttg 1740
gataatttac aacactgtaa cagcgggaac atgaagccgc cactcttggt gtttattgtg 1800
tgtctgctgt ggttgaaaga cagtcactgc gcaccactt ggaaggacaa aactgctatc 1860
agtgaaaacc tgaagagttt ttctgaggtg ggggagatag atgcagatga agaggtgaag 1920
aaggctttga ctggtattaa gcaaatgaaa atcatgatgg aaagaaaaga gaaggaacac 1980
accaatctaa tgagcaccct gaagaaatgc agagaagaaa agcaggaggc cctgaaactt 2040
ctgaatgaag ttcaagaaca tctggaggaa gaagaaaggc tatgccggga gtctttggca 2100
gattcctggg gtgaatgcag gtcttgccctg gaaaataact gcatgagaat ttatacaacc 2160
tgccaacctg gctggtcctc tgtgaaaaat aagattgaac ggtttttcag gaagatatat 2220
caatttctat ttcttttcca tgaagataat gaaaaagatc tccccatcag tgaaaagctc 2280
attgaggaag atgcacaatt gaccctaatg gaggatgtgt tcagccagtt gactgtggat 2340
gtgaattctc tctttaacag gagttttaac gtcttcagac agatgcagca agagtttgac 2400

cagacttttc aatcacattt catatcagat acagacctaa ctgagcctta cttttttcca 2460
gctttctcta aagagccgat gacaaaagca gatcttgagc aatgttggga cattcccaac 2520
ttcttccagc tgttttgtaa tttcagtgtc tctatttatg aaagtgtcag tgaaacaatt 2580
actaagatgc tggaggcaat agaagattta ccaaaacaag acaaagctcc tgaccacgga 2640
ggcctgattt caaagatgtt acctgggcag gacagaggac tgtgtgggga acttgaccag 2700
aatttgtcaa gatgtttcaa atttcatgaa aaatgccaaa aatgtcaggc tcacctatct 2760
gaagactgtc ctgatgtacc tgctctgcac acagaattag acgaggcgat caggttggtc 2820
aatgtatcca atcagcagta tggccagatt ctccagatga cccggaagca cttggaggac 2880
accgcctatc tgggtggagaa gatgagaggg caatttggct ggggtgtctga actggcaaac 2940
caggccccag aaacagagat catctttaat tcaatacagg tagttccaag gattcatgaa 3000
ggaaatatat ccaaacaaga tgaacaatg atgacagact taagcattct gccttctctt 3060
aatttcacac tcaagatccc tcttgaagaa agtgctgaga gttctaactt cattggctac 3120
gtagtggcaa aagctctaca gcattttaag gaacatttta aaacctggta agcagagtgc 3180
ctggtttaga atgccttggt gacaggaata gttaattctc aaaagggaac aacaaaactt 3240
gtttcaaaat acctggaaaa catgtttaac ctcattaata aagacatgaa aacaaac 3297

<210> 1734

<211> 3832

<212> DNA

<213> Homo sapiens

<400> 1734

actcactgta gcgcgtggct ccgtaggcca caccgaggaa cagggcggag tagcggccga 60
gctgcgaaag agctatgtgt tctcatttca cccaagactt tttgccagtg caggggatag 120
aagattcatt ccacaaactt atactgagaa gatatgagaa atgtgggcat gataatttac 180
aattaaggaa aggctgtaaa agtatgaacg tgtgtaaagt gcagaaggga gtttataatg 240
gaattaataa atgcttgta aatactcaga gcaaaatatt tcaatgtaat gcacgtgtca 300
aagtttttag taaatttgca aattcaaaca aagataagac aagacatact ggagagaaac 360

actttaaatg taacgaatgt ggcaagtcac ttcagaagtt ctcagaccta actcaacata 420
aaggaattca tgctggagag aaaccctaca cttgtgaaga acgtggcaaa gactttggat 480
ggtacacaga cctgaatcaa cacaagaaaa ttcatactgg agagaaacct tacaaatgtg 540
aagaatgtgg caaagccttt aataggtcaa caaaccttac tgcacataag agaattcaca 600
acagagagaa agcttacaca ggtgaagatc gtgacagagc ctttggatgg tccacaaacc 660
tgaatgaata taagaaaatt catactggag ataaacccta caaatgtaaa gaatgtggga 720
aagcctttat gcattcctca cacctgaata aacatgagaa aattcatact ggagagaaac 780
cctacaaatg taaggaatgt ggcaaagtca tttcctcatc ctcaagcttt gctaaacata 840
agaggattca tactggcgag aaacccttta aatgtttaga atgtggtaaa gcctttaata 900
tttccacaac ccttactaaa cataggagaa ttcatactgg agagaaacc tacacatgtg 960
aagtatgtgg caaagccttt agacagtccg caaaccttta tgtacatagg agaattcata 1020
ctggagagaa accctacaca tgtggagaat gtggcaaaac ctttagacag tccgcaaacc 1080
tttacgtaca taggagaatt catactggag agaaacctta caaatgcaa gactgtggca 1140
aagccttttg acggtacaca gccctgaatc aacacaagaa aattcatact ggagagaaac 1200
cttacaaatg tgaagagtgt ggcaaagcct ttaatagttc aacaaacctt actgcacata 1260
agagaattca caccagagag aaaccctaca catgtgaaga tcgtggcaga gcctttggat 1320
tgtccacaaa cctgaatgaa tataagaaaa ttcatactgg agataaacc tacaaatgta 1380
aagaatgtgg gaaagccttt atacattcct tgcacctgaa taaacatgag aaaattcata 1440
ctggaaagaa accctacaaa tgtaagcaat gtggcaaagt cattacctca tcctcaagct 1500
ttgctaaaca taagaggatt catactggcg agaaacctt tgaatgttta gaatgtggta 1560
aagcgtttac tagttccaca acccttacta aacataggag aattcatact ggagagaaac 1620
cctacacatg tgaagtatgt ggcaaagcct ttagacagtc cgcaatcctt tatgtacata 1680
ggagaattca tactggagag aaaccctaca catgtgaaga atgtggcaaa accttagac 1740
agtccgcaaa cctttatgta cataggagaa ttcatactgg agagaaacct tacaaatgtg 1800
aagagtgtgg caaagccttt ggacggtaca cagacctgaa tcaacacaag aaaattcata 1860
ctggagagaa actttacaaa tgtgaagagt gtggcaaaga ctttgtatgg tacacggacc 1920
tgaatcaaca gaagaaaatt tacactgggg agaaacctta caaatgtgaa gagtgtggca 1980
aagcctttgc cccatcaaca gacctgaatc aacacacgaa aattcttact ggagagcaaa 2040
gttacaaatg tgaagagtgt ggcaaagcct ttggatggtc catagccctg aatcaacaca 2100

agaaaattca tactggagaa aaaccttaca aatgtgaaga gtgtggcaaa gccttttagta 2160
ggtcaagaaa ccttactaca cataggagag ttcacactag ggagaaaccc tacaaatgtg 2220
aagatcgtgg cagatccttt ggatgggtcca caaacctgaa cgaatataag aaaattcata 2280
ctggagataa actctacaaa tgtaaagaat gtggaaaagt gtttaaacag tcctcacacc 2340
tgaatagaca tgagaaaatt catactggaa agaaacccta caaatgtaag gaatgtggca 2400
aagtcattac gtcacctca agctttgcta aacataagag gattcataca ggtgagaaac 2460
cctttaaatg tttagaatgt ggtaaagcgt ttactagtgc cacaaccctt actaaacata 2520
ggagaattca tactggagag aaaccctaca catgtgaaga atgtggcaaa gccttttagac 2580
agtcagcaat cctttatgta cataggagaa ttcatactgg agagaaaccc tacacatgtg 2640
gagaatgtgg caaaaccttt agacagtctg caaatcttta tgcgcataag aaaattcata 2700
ctggagagaa accctacacg tgtggagact gtggcaaaac ctttagacag tctgcaaadc 2760
tttatgcaca taagaaaatt catactggag ataaaacat acaagtgtaa agaatgtggc 2820
aaagccttta agtcatacta cagcattctt aaacataaga gaactcatal caggggaatg 2880
tcttacgaag gtgacgaatg tcgcggtctt taaatgctcc tcaatccttt ctaatcataa 2940
gataattcat aatgaagaga aactctaaaa tgtgaaaaat gtgagaaggc ttttaatcac 3000
acctcaatct gttgtagaca taagagtaat tatattgatg agaagccaaa ttaaaattaa 3060
aaatgtggca aagacttcca attctagtca gttcttaatg taattcctac tgaagaaaac 3120
acctggaaat acaaaaaatg tggcaaaact tgtaaccaat gcttagcatt tttgcacatg 3180
atagtattta tatgtgagac tacttgtaca aacataaaaa tatacaaaag ctattgtcta 3240
cttgaaattt atagttaata aaagcattat aaatgtaatt tctgttgaaa gaccttttag 3300
aaaatatagg ccattaaagt gaagaatagt ctttaagacag agaatacaaa gataaagagg 3360
gctctagtac ctgtacttgt atcccagaac ttactatatg cattttgtac tagaggaaaa 3420
ctctgaagca gttgcttaaa ctttgttcaa catcagagaa tttatattgg agagaaatcc 3480
tacaaatgta ataatgtgg aaaaacctct gttcagaaac tgcagggtta gaaaccagag 3540
gccaggcgcg gtggctcacg cctgtaatcc caacactttg ggaggccaag gaggggtgat 3600
cacctgaggt cgggagttca aggacagcct gaccaatatg gagaaacctc gtctgtacta 3660
aaaatacaaa aattagcagg acatgggtgt gcatggctgt aatcccagct actcaggagg 3720
ctgagacagg agaatggctt gaaccagga ggtggagggt gcggtgagct gagatcgtgc 3780
cattgcactc cagcctgggt aacaagagtg aaactctgtc tcaaaacaag at 3832

<210> 1735

<211> 3430

<212> DNA

<213> Homo sapiens

<400> 1735

gtagtccatt ttcattgctgc tgataaagac atacctgaga ctggggtagt ttacagaaag	60
aagagattta attggactta cagttccacg tgactaggga agcctcacia tcatgggtgga	120
agggaaggaa gagcaaatca cgtcttacat ggatggcagc aggcaaagag agaattgagga	180
agatgcaaaa gcagaaatcc ctgataaaac catcagatct cgtgaaactt attcactaca	240
atgagaacag tagtggggaa accgcctcca tgattcagtt gtttcacctt ggtccctccc	300
acagcatgtg ggaattatgg gagtacaatt caagaggaga ttcgggtggg gacacagcca	360
aaccatatta ttctgcccct ggccccctcc aaatccttta tctttacatt tcagaaccaa	420
tcatgcattc ccaacggtcc cccaaagtct taactcattt cagcattaac tcaaaagtcc	480
acagtccaaa gtctcatctg agacaaggca agtctcttct gcctataagc ctgtaaaatc	540
aaaagcaagc tagttatttc ctagatacag tgggggtaca gacattgggt aaatacacct	600
gttccaaatg gaagaaattg gccagaacaa aggggctaca ggtccatgc aagtctgaaa	660
tccagcagga cagtcaaatc ttaaagctcc aaaatgggtct cctttgactc catgtctcac	720
atccaggaca tgctgatgca agagatgggt tcccatggtc tggggcagct ccgcccctgt	780
ggctttgcag ggtacagcct ccctcctggc tgctttcaca ggggtggcctt gagtgtctgc	840
ggcttttcca ggcacacggt gtaagctgtc aatgaatcta caattctggg gtctggagga	900
cagtggcctt cttctcacag tgccactagg cggtgcccc ataggaactc tgtgtggcgg	960
cttcgacccc gcatttcctt tccacactgc cctagcagag gttctccatg agagccccgc	1020
ccctgcagca aacttctgcc tgggcatcca ggtgtttcca tacgtctgaa atctaggtgg	1080
aggttcccaa ttcttgactt ctgtgcacct gcaggctcaa tgccacatgg aagctgcaa	1140
gacttggggc ttgtaccatc tgaatccatg gcctgagccc tatgttggcc ctttcagcc	1200
atggctggag tggctaggac gcagggcacc aagtctctag gctgcacaca gctcagggac	1260

cctgggcca gctcacgaaa ctcttttttc ctctaggcct ccagggttg atgggagggg 1320
ctgccttgaa gacctctgac atgccctgaa gacatttccc ccattgtctt ggggattaac 1380
ttttggcttt ttgttactta tgcaaatttc tgcagccggc ttgaatttct cctcagaaaa 1440
tggaatttta ttttctattg cattgtcagg ctgcaaattt ttcaaacttt tatgctgttt 1500
ctcttttaaa actgaatgct ttttaagagca cccacgtcac ctcttgaatg ctttgctgct 1560
tagaaatttc ttccgccaga tatcctaaat catctccctc aagttaaag ttccacaaat 1620
ctctagggca ggggcaaaat gctatcaatc tctttgctaa aacgtaacaa gagtcacctt 1680
tgctccagtt cacaacaagt tctcatctc catctgagac cacctcagcc tggaccttat 1740
tgtccatatg actatcagca ttttgggcaa agccattcaa cactaggaag ttccaaactt 1800
tcccacattt tctgtcttc ttctgagccc tccaaactgt tccaacctct gcctgttacc 1860
cagttttaag gtcacttccc cattttcggg tatcttttca gcagtgtccc attctactag 1920
tactaattha ctaaattagt ccgttttcat gctgctgata aggaaatacc caagacaggg 1980
caatttaca aaggaagagg ctttaattagg cttacagttc cacgtggctt gggaagcctc 2040
acaatcatgg tggaaggcaa ggagaggagc aagtcccgtc ttacatggat ggcagcaggc 2100
aaagagagaa tgaggaagat gcaaaagcag aaaccctga taaaaccatc agatcttgtg 2160
agacctattc actaccacga gaacagtatg ggggaaccgc ccccatgatt cagttatcta 2220
ttcccggtc ctctctaca catgtgggaa ttatgggagt acaattcaag atgagatttg 2280
ggtgagggca cagccaaacc atatcaccat tttaaacaga tgaggaaatg aaggcactga 2340
gaagttaa at aacttgcca tggccccaca gcaagtgaca gcagagattc agaggtaggt 2400
aggctaattg caaaaccatt gttcttaact gttgtgttat gctacctctg gaatatcaaa 2460
tgtatagctt tacttgttca gtcattgctg gattcagggc ccaaacaagg ttattgggat 2520
tctctctcat gttgtatttt ggctcagttt ttctctgggt tgattttatc ctcaggcagg 2580
cattgccggt gaagtacag tatagctgct gggatgagaa ctgcatattc ataatttagc 2640
aattggtgtg gaaagagaga atttatatta acaatacagt tctagcaaat gttctagaat 2700
tgactctcat tgggtcagtt tgagttttat tctatttct gaaccgtcac tgtggcctga 2760
gggtagggat gggatagagt ggaatattct tattggccag tctgggcat gtgtgtttcc 2820
atccctggat ctgagacggg ggaatgaatc cttacctca gggaacatca gggtgcta at 2880
accagaaatg ggaatggata tgggccaggc aaaaacaaat gttcaccacg cttagatat 2940
taggacctca ctgggtgcaa tggctcacgc ctgtaatccc agtactttgg gagactgagg 3000

caggcagatc acctgaggtt agaagtttga gaccagcctg gtcaacatgg caaaacccca 3060
tctctactaa aaatacaaaa attagccggg tgtggtggca tgcgcctgta atcccagcta 3120
ctggggaggc tgaggcagga gaattgcttg aaccgggag gcggagggtg cagtgagctg 3180
agatcatgcc actacactcc agcctgggtg acagagcgag actcaatctc aagggaaaaa 3240
aaaaaaagga tattaggacc gtgctcacc agtaggatct gtctgcttga tttctatfff 3300
agccttaaca tgtcaaatat ttttacagaa ttatgatgaa ttatgataaa ttgaaatcac 3360
gtctgggtga gattcatgat agcaaaatgc gtctagagca ggatttgaag aaacaagctt 3420
tggacaaccg 3430

<210> 1736

<211> 5054

<212> DNA

<213> Homo sapiens

<400> 1736

agaaccatc cagacatgaa gagcgccaaa ggtattgaga acttggcttt tgtcccctcc 60
agcccagaca tcctgcgccg cttgtctgcg tcgccctccc aaatcgaagt ctctgccttg 120
tcctctgacc ccaaagaga gaattctcag ccacaggagc ttcagaagcc ccaggagccc 180
cagaagtcac ccgagccatc tctgccttca gcccctccca atgtctccga agagaagctc 240
cggtcactgt cgctgtccga gtttgaggag gggctcttacg gctggaggaa cttccatcct 300
caatgtctcc agcgtgcaa cacacctgga ggctttctgc ttcactactg cctcttggcc 360
gtcacgcaag gtattgtagt taatggccta gtaaataatta gcatttcac tgttgagaag 420
cgttatgaaa tgaagagttc cctgactggc ctgatttcat caagctacga tatttcattc 480
tgtttgttgt ctttatttgt atcattcttt ggtgaaagag gacataagcc gagatggctt 540
gcatttgcag cttttatgat tggactggga gcacttgtat tctcattgcc acaatttttc 600
agtggagaat ataaattggg gtctcttttt gaagacactt gtgtaacaac aaggaatagc 660
accagttgta catcttcaac ttcttcactt tctaactact tgtatgtctt catcttggga 720
caactattgc tgggggcagg aggaactcct ctttatactc tgggaacagc ctttcttgat 780

gattctgtgc ccacacacaa gtcttctctc tatataggaa ccggttatgc tatgtcaatc 840
ttaggccctg ctattggcta tgtattggga ggacaactgc taaccatata cattgatgtt 900
gctatgggag aaagcactga tgtcactgag gatgatccgc gatggttggg agcttggtgg 960
attgggtttc ttctatcatg gatctttgct tggcttttaa taataccttt ttcttgcttt 1020
ccaaaacatt taccaggtac agcagaaatt caagctggaa aaacttccca ggctcatcag 1080
agtaatagta atgcagatgt gaaatttgga aaaagtatta aagattttcc agctgctcta 1140
aagaatttga tgaagaatgc tgtctttatg tgtttagtgc tatcaacttc ttcagaagcc 1200
ttaattacta ctggatttgc tacattttta cctaaattta tagaaaatca attcggattg 1260
acatccagct tcgcagctac tcttggaggg gctgttttaa ttcctggagc tgctctcggt 1320
caaattttag gtggcttcct tgtttcaaaa ttcagaatga catgtaaaaa cacaatgaag 1380
tttgcaactgt tcacatctgg agttgcactt acgctgagtt ttgtatttat gtatgccaaa 1440
tgtgaaaatg agccatttgc tgggtgtatct gaatcatata atgggactgg agaattggga 1500
aacttgatag ccccttgtaa tgccaattgt aactgttcgc gatcatatta ttatcctgtc 1560
tgtggagatg gagtccaata ttttctctcc tgctttgcag gctgttcaaa cccagttgca 1620
cacaggaagc caaaggtata ttacaactgt tcctgtattg aaaggaaaac agaaataaca 1680
tccactgcag aaacttttgg ttttgaagct aaagctggaa aatgtgaaac tcattgtgcg 1740
aaactgcccc tattcctttg cattttcttt attgtaatta tttttacctt tatggccggt 1800
actcctataa ctgtgtctat cctaagggtg gttaatcaca gacaacggtc cctagccttg 1860
ggaatacaat ttatggctct tcgattatta gggacaattc ctggaccaat tatatttggt 1920
ttcacaatag acagcacatg tattcttttg gatataaatg attgtggaat taaaggagct 1980
tgctggattt atgataacat caagatggcc catatgctag tagccataag tgttacttgt 2040
aaagttatca ccatgttctt caatggattt gcaatctttt tgtataaacc acctccatca 2100
gccacagatg tgtcatttca taaagagaat gcagttgtga ctaatgtttt agcagaacag 2160
gatctcaaca aaatagtaaa agaagggtga aatgggaaaa gagaagactg ttttacacct 2220
ggaaaattta cctcgatttt taagaacaca cattgccatg gcaggattat ctatccaata 2280
tggaacatca tttttacaaa attgatgttt ttataatcaa atgtattttt ttacttatgt 2340
agtttttgtt ttatgcaaga aacagacctg tgccttcaaa gccacgtaa agcctcaaaa 2400
cacagcacac acacacacga gcacacacac acacacacac acgaacacac acacacacac 2460
acacacacgc acacatacac acttattttcc tattcccatt gtctaggtat gaaatcctca 2520

agcaataaca agaaaaaagg cccacaatta gaaaaattta catttaaaaa aaatgttggt 2580
tctatcccca ttacaacttg ttttaatttta attttcattg tcaatatttt gagcttagaa 2640
catttatggt ataaaaattt aaactaatca aagttgtgtg atgatttccg ggaattatta 2700
ttgaaagcct atgaatttaa aaccagggtt accatgtaat ttgtttttaa atttatgtat 2760
actagcctgg cctttctcca agcaaattat tgaactatta gaatatgtta gttatcatcc 2820
ttgtgtctta gtatatagtg aatacagaaa catcagcatt gtatacacat attttcactt 2880
taactcaaga attccaggag gtaatttggt gatattacaa tttttaacac atttatgatt 2940
ctgtgataat attattcaat tgcatatatt tcagaggaaa gtaccagtca gtaaagaaaa 3000
atgccaaact aacatgaaac tattgatcaa tacttatata cctttaattt ttcctatttg 3060
aaaggccaac cacttaacac attactcata gcacctaaga cagtgccttg catagtgtag 3120
tcatctatta ttattgttta attagaatat taaaccctac cctttaactc agcagtcacc 3180
aacctttttt gcatcaggga ccatttttgt ggaagacaat ttttccatgg gggaagaagg 3240
tatggttttg agatgaaact gctccacctc agaccatcag gcattagtta gattctcgta 3300
aggagagtgc aacctagatc ccttgcatgt gcagttccca atggagtgtg cactcctatg 3360
agaatcta at gccactactg atctaacaag aggtggagct caggcagtaa tgctcactca 3420
cctgcctctc agctcaccaa ctgtgtggcc cgattcctaa caggccacac acagcccagg 3480
gctggggacc cctgctttta ctgatgcatt gatttgataa agtattttac aagcctgata 3540
atgttataac cctattttatt caggtcagat ttatgccaac tttgctgaga atatggaggg 3600
tatagatgag tgaacatcaa caaacataac ttctaccatg gttaagaatt ttacttagga 3660
aaagtattga agttcaa atc cagatagtat tacatttgaa attgttataa gggttattaa 3720
tttaataaaa ttcacatca ggtttccct ataagcttc tcctaggtta attttcaca 3780
agcattgttt tatatacact gtaatcagga taacacaagc ttagtgtag atcttgtagg 3840
aaaccaagat tagaaacatt agaaatttgc agaatttaag aaattatgtt ttgtggtaat 3900
ctatggccaa cgatgttaga acctagcgca attgtaaagt gaaattcaag gagaaggaat 3960
gaggagttag ggaagcagca tacttgaata ttagagaagg agaggagctg tgggtcagga 4020
atcagagaga cctgctaaaa ccagacagat ataaacacca aagatggaag ccaaataggt 4080
agccaaaaat ccagatattt gagaagcagg aaatttatag caaccaaaga aatagggcaa 4140
gagaggcagg tgaacacaca tgatacctca attgacaatc ttcctccac caagccagac 4200
acgttgtaaa tgctgcttcc tattggagcc cagaaaaaag gaaagtttag gctttctttg 4260

tcctttgtgt ggaagcaggg aattggattg aagactttca tagttgtaac ataaaggcaa 4320
 atcctgagga actcactgat ggagatgtga aatggcagta aggaagaaaa cagaataact 4380
 gaacaaatat attagtctag ggccacttaa tttagaggaa gaaaaaaaaat caacccatcc 4440
 atagaaatag tttgataaac aggtcactaa atcattggcg tttataaaga ttcttagcta 4500
 tcaagggtg cattgtattt tatatactca gttttataag gtgatacttt ttaaataagc 4560
 gctttaatga aaatggtag actgaaaata attttgggtcc ttaaaaggag tcaggagctt 4620
 ttatatataa ggtacatatt ttaaaagaat acctccttta taacagggtt ttacagacac 4680
 taccataatt tataatcatt attttttact tttgggttca cctagatcat atgagttgat 4740
 gtgatacttc tagaacaaaa ttattcatag tgcgtttttt gtaatttatg attgttaagt 4800
 aagcttgact tataaatga cattgtaatt gtgtacataa ttggatatat gtgttaaaat 4860
 ttaacattta gatttactta attgtagaaa atacaaatgt aaaacttaca catggaaaga 4920
 actgtatgca gttgacttta ctatgtaaata tggaggggaaa caaagtttta gatccatttt 4980
 ctttcaaaat tttctttatt gtaaagtatg caaaatatat attcatacca tttattaaat 5040
 cagaatgttt atac 5054

<210> 1737

<211> 3481

<212> DNA

<213> Homo sapiens

<400> 1737

cagatgcaga ccaagatgca gaaaggcacc cttctcaggc cgcagggtgc caggcagggtg 60
 tcagagggtgc agcccgtgca caccggggac cctatccatc ctgtctagtt gggaggacta 120
 ggagttccac atgtgggacc ctcaattcct gctgccttca gaaccaggcc caacccttgc 180
 tgtgacctcg agggtgcca cttttcagag tgcactgggc ctgtctccac ccatagacca 240
 tactgccaca tctgtacctc gggcaccaat ctctccccac cacaggggccc tgtgcctgag 300
 atggtccttc tacagaaata cctgctcctg gcatggctgg cttcttgcca attctggatc 360
 tccagctgcc accccagaga ggcactggct tccctgttta aagagggtcc ccccatcacc 420

catcttcaca gcagactgtt tgcttggctg tgtgcccctt cagacccaca cccattacct 480
ccccctctcc cccatcctcc caccctcttc caaaggctga acacacagga gggattggga 540
aatTTgttga acaaagaagt tacacataag ccctgatgtg ttagcaggac agtgagatga 600
acaaaacgtt ctggaaagt ggtgtgaggg tcagatgtgg agggagtga atcttcccag 660
ggagagaatg tctctgggtc aacctgctcc tgctgggctg ggagggccga acacccccca 720
cccatcacc caggctggcc ctgaccccag ccttccctgt gcctgcagca ccggcagctg 780
ctgaaggaca gcttcatggt ggagctggtg gagggggccc gcaagctgcg ccacgtcttc 840
ctgttcaccg acctgcttct ctgcaccaag ctcaagaagc agagcggagg caaaacgcag 900
cagtatgact gcaaattgta cattccgctc acggatctca gcttccagat ggtggatgaa 960
ctggaggcag tgcccaacat ccccttggtg cccgatgagg agctggacgc tttgaagatc 1020
aagatctccc agatcaagag tgacatccag agagagaaga gggcgaacaa gggcagcaag 1080
gctacggaga ggctgaagaa gaagctgtcg gagcaggagt cactgctgct gcttatgtct 1140
cccagcatgg ccttcagggt gcacagccgc aacggcaaga gttacacgtt cctgatctcc 1200
tctgactatg agcgtgcaga gtggaggagg aacatccggg agcagcagaa gaagtgttcc 1260
agaagcttct ccctgacatc cgtggagctg cagatgctga ccaactcgtg tgtgaaactc 1320
cagactgtcc acagcattcc gctgaccatc aataaggaag gtgggcccc ccgtttccgt 1380
gtacagggca cctgcaggga gggcaggcag ctagcctgaa ggctgatccc cccttccctgt 1440
tagcactttt gatgggacta gtggactttg gttcagaagg aagagctatg cttgttaggg 1500
cctcttgtct cctcccagga gtggacaagg tgggttagga gcagtttctc cctgagtggc 1560
tgctgctggg tggttgagga gatgcacggc ttctgttccct agtcacaagg ctgcagcaga 1620
cgctcctcag atgctctgtg ccttggatct ggccccactc ccgtcctccc agccctcctc 1680
tcctccagct acctgccagc cggcactttt ggtcaagctg ttttgcatc actgttgcac 1740
atatgctcag tcacacacac agcatacgt atgcacatgt gtccacacac accccacca 1800
catcccacat caccceggacc ccctctgctg tccttggaa cttattacac ttcgagtcac 1860
tggtttgcct gtattgtgaa accaactgga tcctgagatc cccaagacag aaatcatgat 1920
gagtatgttt ttggcccatg acactggctt accttgtgcc aggcagatgg cagccacaca 1980
gtgtccaccg gatggttgat tttgaagcag agttagcttg tcacctgcct ccctttcccg 2040
ggacaacaga agctgacctc tttgatctct tgcgcagatg atgagtctcc ggggctctat 2100
gggtttctga atgtcatcgt ccactcagcc actggattta agcagagttc aagtaagtac 2160

tggtttgggg aggagggttg cagcggccga gccagggtct ccaccagga aggactaatc 2220
 gggcagggtg tggggaaaca gggaggttgt tcagatgacc acgggacacc tttgacctg 2280
 gccgctgtgg agtggtttgt ctggttgatg ctttctgggt gtggaattgt ttttcccga 2340
 gtggcctctg ccctctcccc tagcctgtct cagatcctgg gagctggtga gctgccccct 2400
 gcagggtgat cgagtaattg caggggtttg gcaaggactt tgacagacat cccaggggt 2460
 gcccgggagt gtgggttccc agccaggagg gctgtcagca gtgcaccttc accccacagc 2520
 agagcagatt tggctgtct gtcgagctgg atggatacta cttttttttt ctttccctc 2580
 taagtggggg tctccccag ctactggagc tgtcagaaca gtgaaggctg gtaacacatg 2640
 agttgcactg tgtaagttc tcgaggccgg gcgcagtggc tcatgcctgt aatcccagca 2700
 ctttgggagg ctgaggcagg tggatcgctt gagctcagga gttggagacc agcctgacca 2760
 acatggtgaa accctgtgtc tactaaaaat acaaagatta gccaggctag gcagtgggca 2820
 cctgtaatca caactgcttg ggaggctgag ggaagagaat cgcttgaacc tccgcctccc 2880
 aggttcaagc atttctcttg cctcagcttc ccgagtagct gggattacag gcatgtgcca 2940
 ctatgcccgg ctaacttgta tttttagtgg agatggcggt tcaccatgtt ggccaggctg 3000
 gtcttgaagt cctgacctca ggtcatctgc ccaccttggc ctcccaaagt gctaggatta 3060
 caggcgcgag ccactgtgcc cagcctatit tttattttta tgggtacctt ttagatgtat 3120
 atattaatgg ggtacataag atattttgat agagacatac aatgtgtaac aatcatgtca 3180
 gggtaaattg agtatccgtc agctcaagca ctgatgcttt cttcatgttt caaacaatcc 3240
 agttatactc ttttagttat ttttaaatgt ataataaatt gtagtcactc cattgtccta 3300
 tcaaataatta gattttatta attctatcta actatatttt tgtaccatt aaccatcgct 3360
 cattttctcc acccccaact accctttcca gactctggta gccatcattc tactctatct 3420
 ccacgggctc aattgttttg agtttttagat cccacaaata aacgagaaca tgtgaggctt 3480
 g 3481

<210> 1738

<211> 4128

<212> DNA

<213> Homo sapiens

<400> 1738

tttgagatca accggtctga ccaaaattta ttaggcggga atttcctctt cctaataagc 60
ctcacaggac cacaggactg aggcgaaatt aaaattgcta atgaagtttt gggcaccatt 120
gtcattgata acatcttatac aggagacagg gttttgagat caaccggtct gaccaaatt 180
tattaggcag gaatttcctc ttcctaataa gcctaggagc gctatgggag actggagtct 240
gttttagctc tgcagcctca accataagag acaggcgcac ctgggggggc tgtttataag 300
cctatactc caggtgcgta ttctctttct cagggatgtt ccatgctgag aaaaagaatt 360
cagcgatatt tctcccattht gcttttgaaa gaagagaaat acggctctgt tatgcctggc 420
tcaccggcgg tcagagttha aggttatctc tcttattccc tgaacaattg ttgttatcct 480
gctctttttt caagggtgcc acatttcata ttgctcaaac acacatgcta tataatttgt 540
gtagttaaca caattatac atggctctga ggcatatac atcctcctca gctgacagga 600
ttaagagatt aaagtaaaga caggcatagg aaatcacaag agtattgatt ggggaagtga 660
taagtgtcca tgaaatcttt acaaatttta tgtttagaga ttgcagtaaa gacaggcata 720
agaaattaca agaataataa tttggggaac taataaatgt ccatgaaacc ttataatcc 780
atgttcttct gccatggctt cagctggtcc ctctgtttgg ggtccctgac ttcctgcaac 840
atagttaggt cagcgcagtg gaaaataatg aagctggctg acttcttttc aaaccacaca 900
caatttctga agttaatgat tcaacagctg gagagtctg atggaaaaaa cagtataact 960
aaagaatttc ctaggcagcc ctagctactt ttaagtaggg gcaaatgaag gatattctta 1020
agtatacagg actcagtaaa tgtaccaccc cttttttatc atgaggttac cctgtctaca 1080
tagttttatg cttttccgtc tggaactcag ttttgcttat gccctctaaa tctagatttt 1140
gtttcccttt tgtttgtata tctctgattt gtctttgcct atcatttttag tttaattatt 1200
taacttttag atatggctat gtaaatgtat ttgaaaacct ggatttttaa gaatgatgta 1260
aataagttca agatgaggaa agacaaaaac ctaacagact ctagttataa aaaaattgaa 1320
acattattcg ctaataaaaag caccagtgtg gctctccctc tccctctccc tatccctctc 1380
cctctcccca cggtctccct ctccctctct ttcacaggtc tccctctgat gctgagccaa 1440
agctggactg tactgctgcc atctcggctc actgcaacct ccctgcctga ttctcctgcc 1500
tcagcctgcc gactgcctgc gattgcaggc gcgcgccgcc acgcctgact ggttttcgta 1560
tttttttggg ggagacgggg ttttgctgtg ttggccgggc tggctctccag ctctaacccg 1620

cgagtgatcc gccagcctcg gcctcccgag gtgccgggat tgcagacaga gtctggttca 1680
ctcagtgtctc aatgggtgcc aggctggaat gcagtggcgt gatcttggct cgctacaacc 1740
tccacctccc agccgcctgc cttggcctcc caaagtgccg agagtgcagc ctctgcccgg 1800
ccgccacccc gtctgggaag tgaggagcgt ctctgcctgg ccgcccacgc tctgggacgt 1860
gaggagcccc tctgcctggc tgcccagtct ggatagttag gagcgtctct gcccggtgc 1920
catcccatct aggaagttag gagcgctct tcccggccgc catcccatct aggaagttag 1980
gagtgtctct gcctggcctc ccctcctctg agatgtgggg agcgcctctg ccccgccgcc 2040
ccatctggga tgtgaggagc gccctgccc ggctgcgacc ccgtctggga gaccttgcct 2100
tctgtttta catcacaat ctaaaaaagg accccccct caagccaat atgccattca 2160
ttgtatccat gcgatatttt ctagtaaaga gaccagttt gcacagatat ttgagcctct 2220
gcataagagc ctagatccaa gcaacctgga acatctcata acaccattgg ttactattgg 2280
tcacattgct ctcttgcac ctgatcaatt tgctgtcct ttgaaatctt tggtagctac 2340
tttcattgtg aaagatctt tcatgaatga tcggcttcca gggaaaaaga caactaaact 2400
ttgggttcca gatgaagaag tatctcctga gacaatggc aaaattcagg ctattaaaat 2460
gatggttcga tggctacttg gaatgaaaaa taatcacagt aaatcaggaa cttctacctt 2520
aagattgcta acaacaatat tgcatagtga tggagacttg acagaacagg ggaaaattag 2580
taaaccagat atgtcacgct tgagacttgc tgctgggagt gctattgtga agctggcaca 2640
agaaccctgt taccatgaaa tcatcacatt agaacaatat cagctatgtg cattagctat 2700
caacgatgaa tgctatcaag taagacaagt gtttggccag aaacttcaca aaggcctttc 2760
ccgtttacgg ctccacttg agtatatggc aatctgtgcc ctttgtgcaa aagatcctgt 2820
aaaggagaga agagctcatg ctaggcaatg tttggtgaaa aatataaatg taaggcggga 2880
gtatctgaag cagcatgcag ctgttagtga aaaattattg tctcttctac cagagtatgt 2940
tgttccatat acaattcacc ttttggcaca tgaccagat tatgtcaaag tacaggatat 3000
tgaacaactt aaagatgta aagaatgtct ttggtttgtt ctggaaatat taatggctaa 3060
aaatgaaaat aacagtcacg cttttatcag aaagatggta gaaaatatta aacaaacaaa 3120
agatgcccac ggaccagatg atgcaaaaat gaatgaaaaa ctgtacactg tgtgtgatgt 3180
tgccatgaat atcatcatgt caaagagtac tacatacagt ttggaatctc ctaaagacct 3240
gggtactacca gctcgtttct tcaactcaacc tgacaagaat ttcagtaaca ccaaaaatta 3300
tctgcctcct gaaatgaaat ctttttcac tcttgaaaa cctaaaacaa ccaatgttct 3360

aggagctgtt aacaagccac tttcatcagc aggcaagcaa tctcagacca aatcatcacg 3420
 aatggaaact gtaagcaatg caagcagcag cccaaatcca agctctcctg gaagaataaa 3480
 ggggaggctt gatagttctg aaatggatca cagtgaaaat gaagattaca caatgtcttc 3540
 acctttgccg gggaaaaaaa gtgacaagag agacgactct gatcttgtaa ggtctgaatt 3600
 ggagaagcct agaggcagga aaaaaacgcc cgtcacagaa caggaggaga aattaggtat 3660
 ggatgacttg actaagttgg tacaggaaca gaaacctaaa ggcagtcggc gaagtcggaa 3720
 aagaggccat acggcttcag aatctgatga acagcagtgg cctgaggaaa agaggctcaa 3780
 agaagatata ttagaaaatg aagatgaaca gaatagtccg ccaaaaaagg gtaaaagagg 3840
 ccgaccacca aaacctcttg gtggaggtac accaaaagaa gagccaacaa tgaaaacttc 3900
 taaaaaagga agcaaaaaaa aatctggacc tccagcacca gaggaggagg aagaagaaga 3960
 aagacaaagt ggaaatacgg aacagaagtc caaaagcaaa cagcaccgag tgtcaaggag 4020
 agcacagcag agagcagaat ctctgaatc tagtgcaatt gaatccacac agtccacacc 4080
 acagaaagga cgaggaagac catcaaaaac gccatcacca tcacaacc 4128

<210> 1739

<211> 4575

<212> DNA

<213> Homo sapiens

<400> 1739

ttctctaacc agattatcta cctcttgatg gcggtggtaa agtttcatga tatctgtaca 60
 catagtcccc agcagcctct attactccta acccatctac aaggagaaaa aaaccaaadc 120
 attaatatga cttggaagat actttttcat cttgctctgg ccacattgcg tttctcatcc 180
 ctccccattc cttcacaggt actttactct gacatgcaga acaaggagca gctccctgaa 240
 cacatcatgc tctctctcga gtccttcctt ttctatatag tgttcttttc ttctgaaata 300
 acctttttct cccaggttaa tttctacaag cctttcctaa ctcaacacat actacagtgc 360
 acttttcatt cgacctagca gtatttattg gggacctgct atgtgtcagg cactgttctg 420
 ggggttgaga ttaagagaac aagatcgatc aagtccttct ctctggacg tttgatttta 480

gttgagagag acaagataat aagcaaagaa gaaaaatatc aaatagttag acgtgctata 540
taaaaagtta aaatagggtta atataggagt gacttgatac tttagataga gtgatcaggg 600
aaatatctga taacaatcaa aatctgaatg aaaaaaacag ctgcattcac tgcgtgatga 660
ttgtatgtta ggtattgttt gaagtgtttt acatgtgtta gctcacttga tcctcagaac 720
agccttttgc agttgttacc attatcctca tttgacaaag aagaaaactg gggcactaga 780
gccccatgttc tgaaccacat gctaaactgc ctgccttatg aaaagacagt gaaaatgaga 840
aaagagaatt cagagtagag agaacaacca ctgcaagtcc cctaaggctg gttggagctt 900
ggcgtgttaa aaaaaaagaa tgccagtttg gctgcaccct ggagggcaaa ggagagcatg 960
ggaagggagg tgacagaggg aggcaggttc cagatcacac aggacttgag tgagcaggga 1020
aattagttta gatatttatt taagtgttat agtaaaccag ttttgggggtt actgttctgt 1080
gacatggttt aggggctgcc atgtttggtc tccatcatac tggttgaatt agatggcagc 1140
tggggctgga ggcattctgaa gcctttttca ctcacattct gggttcttggg ctgggataac 1200
tggacctgct gggggctgtc gggcattctt ctcactgagg agcttcttca tgtgacttgg 1260
ttgtgcttgc atacaacata gcaatctcgg gctggttgga ctccgtacat gacagctgtc 1320
ttctcctagc atgagcattc caggagacag gaagtaggag ctgccagtcc cttagagtct 1380
atgttgggaa actggcacao tgtcactttt gccatattct gttggtcaaa atagtcacag 1440
agccaggtgt tattccaggg gaggggactt agatgccacc tctcagttag aaaagtatca 1500
aagaatttgt ggcccgtccg ggcacagtgg ctcacacctg taatcccagc acttcaggag 1560
gccaagtctg gcagatcact tgaggccagg agtttgagac cagcctgggtt aacatggcaa 1620
aacccttct ctacttaaaa aatacaaaaa ctagctgggc atggtggcac acatctgtaa 1680
tcccagcttc tcaggaggct gaggcacgaa aatcacttga acccgagagg tggaggctac 1740
aataagccaa gatcacgcca ctgtactccc gcctgggcga cagacagagc gagaccctgt 1800
cttaaaaaaa gaaagaaaaa acaaatggaa tttgtgggca tttttaggct accagagatc 1860
acaatctttt ttcacatttt aaaaggctca ttcttgctgc tgggtaaaga gtgactggga 1920
aggggccaga gaggagcagt tagattgtca tccttttaggc ttccccagca tcctgtgggt 1980
gtctttatca atgcgtagca cacagttttg cagttatttg ttttgcattg ctgttttctc 2040
cactggactg aacttctgaa gataaagact ctctctcacc tccatacccc caaaacctgg 2100
catctcatta ctagatgctt aataaatttg tttttttttt ttttttcaga tggagtttca 2160
ttgttgttgc ccgggctgga gtgcgggtgg gcggtcttgg ctcaccacag cctccgccta 2220

ctgggttcaa gcaattctcc tgcctcagcc tcccaagtgg ctgggattgc aggcatgtgc 2280
caccacacca cacatattgg tcaggctggg cttgaactcc tgacctcagg tgatccaccc 2340
gcctcggcct cccaaagtgc tgggattaca ggcgtagacc actgcacca gccataaat 2400
gttttatgac tcaaagaata attataaaca gagggagacc aaagtattac aagtcattaa 2460
agaatatact tttagatatt ttcatactaa ttatatctaa ttgtgatata ggcacaagat 2520
ctagctttta aagacttgca tttttcagat aaaaaccctg agtattgctt tagtattgtg 2580
atcctatctg aagacagggt tgttgaatct taattcttgt ttatagtatt ttattacat 2640
ttttttttac taagaacact gtcaaaactt tttagtattt ctttagacca tctcattcat 2700
aatcaacac ttactgttga tgcctgttct gtgtgaaacc ctgaggag gaaatagcaa 2760
agaactagaa gtcattgtct catttgaagg actgtacttc taattcaata aaaaatgtag 2820
aaaacatcat ttttagtatg accaactagg agaaatcctg actctactaa aaatacaaaa 2880
ttagccgggc gtggtggtgc atgtctgtgg ttccagctgc tcgggaggct gaggcgggag 2940
aggcacttga acccgggagg cggagattgt cagccaagat ggcgccattg cgctccggcc 3000
tgggcaacaa gactgagact gtctccaaaa aaaaaaaaaa aaatcaaata ttctttataa 3060
ctgtaagaaa atagttatct acaacttttt gcttgatttt aacctaatat attctttttt 3120
ttgtttttgt ttttgttttt ttgagacgga gtttcacact tgttgcccag gcaggagtgc 3180
agtgatgcag tctcggctct cagtctctca gggatcctg aagcagttta tgttgtttat 3240
accggcgatg ttaatgtcaa cggatcaacag atactagaag gtgctttcag aagatttaac 3300
atcagattaa ttcaccagt gcagtttgtt tttttaagga aacgctatct tgtggaagat 3360
tcaactgtatc ctcaattcac actgctgggc caaagtctag gatccatttt tcttggtggtg 3420
gaagctctaa tgcagtgtgt tcttgatgtt tacattgatt caatgggata cgcttttacg 3480
cttcctctgt ttaagtatat agggggttgc caagttggaa gctatgttca ttatcctact 3540
atcagcaccg acatgctctc tgtagtgaag aatcaaaata ttggatttaa taatgcagcc 3600
ttcattacca ggaatccttt tctcagcaaa gtaaagctca tctactacta tttatttgct 3660
tttatttatg gacttggttg ttcttgagct gatgtagtca tgggtcaattc ttcttgagca 3720
ctaaaccata ttctctcact atggaaagct gggaattgca ctaacattgt ttatccacct 3780
tgtgatgtgc agacatttct ggacattccc ttacatgaga aaaagatgac ccaggacat 3840
ttgctggttt ctgttgcca gtttaggccg gaaaagaatc atccattgca gatcagagcc 3900
tttgctaaat tgctgaataa gaagatgggt gagtcacctc cttcgcttaa acttgctctc 3960

attggagggtt gtcgtaacaa agatgatgaa cttagggttaa accaactgag aaggctgtct 4020
 gaggatttag gaggttcaaga atatgtggaa tttaaaataa acattccatt tgatgaatta 4080
 aagaattatt tgtctgaagc aacaattggt ctgcatacca tgtggaacga gcattttggg 4140
 attggagttg tggagtgtat ggcagctggc acaattatcc ttgcacacaa ttcggggggc 4200
 ccaaagcttg acattgtggt tcctcacgaa ggagatataa ctggctttct ggctgagagt 4260
 gaagaagact atgctgaaac tatcgctcac attctttcca tgtctgcaga aaagagactc 4320
 caaatcagaa aaagtgctcg tgcactgtga agcagattct ctgatcagga atttgaagtg 4380
 acattcctat catctgtgga aaagttatct aagtaatgcc atatctgtaa aattaaagat 4440
 attttatata aactgggttaa acaccttcac atgtaaatat ttttctaaat tcaatctcat 4500
 ttgtcaaadc attttacttt agaaaacaga caaaatttcc ttttagaata aaaggaagtg 4560
 ttgaaaagaa aatgg 4575

<210> 1740

<211> 4184

<212> DNA

<213> Homo sapiens

<400> 1740

atggtttcac tcattggagc cccataccaa ccaccagcac tcctgggacc tccatagtga 60
 acctgggaac ctctgggatc ccaccttccc tccctgaaac tacagccacc ggccctctcc 120
 tgggtgccatt cacactcaac ttcacatca ctaacctaca gtatgaggag aacatgggtc 180
 accctggctc caggaagttc aacatcacgg agagtgttct gcagggtctg ctcaagccct 240
 tgctcaagag caccagtgtt ggccctctgt attctggctg cagactgacc ttgctcaggc 300
 ctgagaagga cggagtagcc accagagtgg acgccatctg caccaccgc cctgacccca 360
 aaatccctgg gctagacaga cagcagctat actgggagct gagccagctg accacagca 420
 tcatgagct gggaccctac accctggata gggacagtct ctatgtcaat ggtttcacc 480
 agcggagctc tgtgcccacc accagcactc ctgggacttt cacagtacag ccggaacct 540
 ctgagactcc atcatccctc cctggcccca cagccactgg ccctgtcctg ctgccattca 600

ccctcaattt taccatcatt gacctgcagt atgaggagga catgcatcgc cctggctcca 660
ggaagttcaa caccacggag agggtccttc agggctctgct tatgcccttg ttcaagaaca 720
ccagtgtcag ctctctgtac tctggttgca gactgacctt gctcaggcct gagaaggatg 780
gggcagccac cagagtggat gctgtctgca cccatcgtec tgaccccaaa agccctggac 840
tggacagaga gcggctgtac tggaagctga gccagctgac ccacggcatc actgagctgg 900
gcccctacac cctggacagg cacagtctct atgtcaatgg tttcacccat cagagctcta 960
tgacgaccac cagaactcct gatacctcca caatgcacct ggcaacctcg agaactccag 1020
cctccctgtc tggacctacg accgccagcc ctctcctggg gctattcaca attaacttca 1080
ccatcactaa cctgcggtat gaggagaata tgcatacccc tggctctaga aagtttaaca 1140
ccacggagag agtccttcag ggtctgtctca ggccctgtgtt caagaacacc agtgtttggcc 1200
ctctgtactc tggctgcaga ctgaccttgc tcaggcccaa gaaggatggg gcagccacca 1260
aagtggatgc catctgcacc taccgccctg atcccaaaag ccctggactg gacagagagc 1320
agctatactg ggagctgagc cagctaacc acagcatcac tgagctgggc ccctacacc 1380
tggacaggga cagtctctat gtcaatgggt tcacacagcg gagctctgtg cccaccacta 1440
gcattcctgg gacccccaca gtggacctgg gaacatctgg gactccagtt tctaaacctg 1500
gtccctcggc tgccagccct ctctggtgc tattcactct caacttcacc atcaccaacc 1560
tgcggtatga ggagaacatg cagcacctg gctccaggaa gttcaacacc acggagaggg 1620
tccttcaggg cctgctcagg tcctgtttca agagcaccag tgttggccct ctgtactctg 1680
gctgcagact gactttgtc aggccctgaaa aggatgggac agccactgga gtggatgcca 1740
tctgcacca ccacctgac cccaaaagcc ctaggctgga cagagagcag ctgtattggg 1800
agctgagcca gctgaccac aatatcactg agctgggccc ctatgccctg gacaacgaca 1860
gcctctttgt caatggtttc actcatcgga gctctgtgtc caccaccagc actcctggga 1920
ccccacagt gtatctggga gcatctaaga ctccagcctc gatatttggc ccttcagctg 1980
ccagccatct cctgatacta ttcacctca acttcacat cactaacctg cggtatgagg 2040
agaacatgtg gcctggctcc aggaagttca aactacaga gagggtcctt cagggcctgc 2100
taaggccctt gttcaagaac accagtgttg gccctctgta ctctggctgc aggctgacct 2160
tgctcaggcc agagaaagat ggggaagcca ccggagtgga tgccatctgc acccaccgcc 2220
ctgacccac aggcctggg ctggacagag agcagctgta tttggagctg agccagctga 2280
cccacagcat cactgagctg ggcccctaca cactggacag ggacagtctc tattttcaatg 2340

gtttcaccca tcggagctct gtaccacca ccagcaccgg ggtggtcagc gaggagccat 2400
tcacactgaa cttcaccatc aacaacctgc gctacatggc ggacatgggc caaccggct 2460
ccctcaagtt caacatcaca gacaacgtca tgcagcacct gctcagtcct ttgttccaga 2520
ggagcagcct ggggtgcacgg tacacaggct gcagggtcat cgcactaagg tctgtgaaga 2580
acggtgctga gacacgggtg gacctcctct gcacctacct gcagcccctc agcggcccag 2640
gtctgcctat caagcaggtg ttccatgagc tgagccagca gacccatggc atcaccggc 2700
tgggccccta ctctctggac aaagacagcc tctaccttaa cggttacaat gaacctggtc 2760
cagatgagcc tcctacaacc atgggggtacc acctgaagac cctcacactc aacttcacca 2820
tctccaatct ccagtattca ccagatatgg gcaagggtc agctacattc aactccaccg 2880
aggggggtcct tcagcacctg ctcagacctt tgttccagaa gagcagcatg ggccccttct 2940
acttgggttg ccaactgatc tccctcaggc ctgagaagga tggggcagcc actggtgtgg 3000
acaccacctg cacctaccac cctgaccctg tgggccccgg gctggacata cagcagcttt 3060
actgggagct gagtcagctg acccatggtg tcacccaact gggcttctat gtcctggaca 3120
gggatagcct cttcatcaat ggctatgcac cccagaattt atcaatccgg ggcgagtacc 3180
agataaattt ccacattgtc aactggaacc tcagtaatcc agaccccaca tcctcagagt 3240
acatcacctt gctgagggac atccaggaca aggtcaccac actctacaaa ggcagtcaac 3300
tacetgacac attccgcttc tgcctggta ccaacttgac gatggactcc gtgttggta 3360
ctgtcaaggc attgttctcc tccaatttgg accccagcct ggtggagcaa gtctttctag 3420
ataagacctt gaatgcctca ttccattggc tgggtctccac ctaccagttg gtggacatcc 3480
atgtgacaga aatggagtca tcagtttata aaccaacaag cagctccagc acccagcact 3540
tctacctgaa tttcaccatc accaacctac catattccca ggacaaagcc cagccaggca 3600
ccaccaatta ccagaggaac aaaaggaata ttgaggatgc gctcaaccaa ctcttccgaa 3660
acagcagcat caagagttat ttttctgact gtcaagtttc aacattcagg tctgtccca 3720
acaggcacca caccggggtg gactccctgt gtaacttctc gccactggct cggagagtag 3780
acagagttgc catctatgag gaatttctgc ggatgacctg gaatggtacc cagctgcaga 3840
acttcacctt ggacaggagc agtgtccttg tggatgggta ttctcccaac agaaatgagc 3900
ccttaactgg gaattctgac cttcccttct gggctgtcat cctcatcggc ttggcaggac 3960
tcctgggact catcacatgc ctgatctgcg gtgtcctggg gaccacccgc cggcgggaaga 4020
aggaaggaga atacaacgtc cagcaacagt gcccaggcta ctaccagtca cacctagacc 4080

tggaggatct gcaatgactg gaacttgccg gtgcctgggg tgcctttccc ccagccaggg 4140
tccaaagaag cttggctggg gcagaaataa accatattgg tcgg 4184

<210> 1741

<211> 4350

<212> DNA

<213> Homo sapiens

<400> 1741

gagtgcgcgc tcctcctcgc ccgccgctag gtccatcccg gccagccac catgtccatc 60
catttcagct ccccggtatt cacctcgcgc tcagccgcct tctcgggccg cggcgcccag 120
gtgcgcctga gctccgctcg ccccggcggc cttggcagca gcagcctcta cggcctcggc 180
gcctcgcggc cgcgcgtggc cgtgcgctct gcctatgggg gcccggtggg cgccggcatc 240
cgcgaggtca ccattaacca gagcctgctg gccccgctgc ggctggacgc cgaccctcc 300
ctccagcggg tgcgccagga ggagagcgag cagaagtcgg ccaagagcag ccgcctccca 360
gacatctttg aggcccagat tgctggcctt cggggctcagc ttgaggcact gcaggtggat 420
gggggcccgc tggaggcgga gctgcggagc atgcaggatg tggaggagga cttcaagaat 480
aagtacgaag atgaaattaa ccgccgcaca gctgctgaga atgagtttgt ggtgctgaag 540
aaggatgtgg atgcttccta catgagcaag gtggagctgg aggccaaggt ggatgccctg 600
aatgatgaga tcaacttcct caggaccctc aatgagacgg agttgacaga gctgcagtcc 660
cagatctccg acacatctgt ggtgctgtcc atggacaaca gtcgtccct ggacctggac 720
ggcatcatcg ctgaggtcaa ggcacagtat gaggagatgg ccaaatgcag ccgggctgag 780
gctgaagcct ggtaccagac caaggtgtga ggccaccagg ggcgtacttc ctctgccag 840
ggtccttggg ggcagcttcc cttactcctc aacttgtctc aagccttcag ggcctgggtc 900
ccactgttct ggcaggcacc agtggtttta gtctgtggtg ctctgccctg gagaaaatcc 960
caagatggga ggacaggga gaggaatag atatggatta atcattataa tagctaaaat 1020
atggcaagta cttacacagt actaggctca tgtaattatt gactcatgta atccacagaa 1080
cagccctatt agataggcat cattattacc cccattttgt tttatttaat ttaatttatt 1140

ttattttctat tttttgagat ggagtcttgc tctgtcaccc aggctgaagt gcagtgggtgc 1200
gatcttggct cactgcaacc tttgcctccc tggttcatgt gatcctcgtg cctcagcctc 1260
ctgagtagct gggactacag gtgtgcacca ccatgcctgg ctaatttttt ttgtattttg 1320
agtagagacg aggtttcacc atgctggcca ggctgggtctc aacctcctga cctcaggtga 1380
tccacctgcc tcggcctccc aaagtgtgg gattataggc gtgagacacc gcacccagcc 1440
tattaccccc atttaaagat gaggaaattg aggcacagag aggttaagta atttgcctaa 1500
ctgcatacag ctagtagatg gaagagcagg gactaaatcc tgaatgtgag ggccctagac 1560
ctgggaggct taatcatcac atctacttca tgggtggcagg acagttgatg gtgcagggggc 1620
tgaggggagca ggagtgggtg ctgggggtgaa ccagtgttcc tgaagaaggg atccccaggc 1680
aaggattgag aggtctgccc ctgcagagat agagagtcac tcatgggtgcc tgggtgagaa 1740
cacaagtatg ccaacaagaa gacctgggtt caggccctcg ttccatcact gattggctgt 1800
gtgatccctg ggtgggtgctt tctcttctcc gagactcact ctcctcacct gtgaaatggg 1860
tgttctgggt gttgaatggg tgcgaatctc aaactctcag tgattctcca gcagaagggc 1920
atggtgggag tggaagagcc ctgggggtcca tgggggatggg actgcggagc cttgtctgtc 1980
ctccctgcct ggcttggagg agaatgaatc ccttctcac actgctgtct ggtctcctgg 2040
catcgggcaa aggttgatgg gagtcagact gtccttccct gaaaatataa gttgggaggg 2100
gccttgggtg gggagaggga tgagttacct gtactcactg cccatctctc tgccataact 2160
ctctgtatgg cccctccagt ttgagaccct ccaggcccag gctgggaagc atggggacga 2220
cctccggaat acccggaatg agatttcaga gatgaaccgg gccatccaga ggctgcaggc 2280
tgagatcgac aacatcaaga accaggtggg acaagtcctc ctggcttccc ctgctacttg 2340
gggcatgcag ggggtggccag ctgaggccaa actcaggatg tggagcagga ggttcccatc 2400
tcccggccaa agctggtgcc actgtctcag acccccttgt gagatctcca gcacagaatg 2460
ttcttggcca ggtcctggca tgggctgatg ggagaaaggt cctggatgtg cacagagcct 2520
gtggagggag actcaggctg gctggccaga agaaagccac cactggttcc acattgatac 2580
tgagcactct gcttgcacct ggttctggct gcagggcgct gtccctggga gctcatcatt 2640
cattgcaggg acagaggaca gcagaagacc ttataatgac tcacatggcc ctttcccacc 2700
cactccaacc tcactttcca cgattcccct cactctgtc tggccatgct aacctgcttc 2760
ctgcatcttg catttgccaa gaatggatcat gcttcagggc ctttgcaactt ggcgttgcc 2820
ccccctggaa tgtggttctc ccagctctgt ccatggttgt tgttttctcc tccctgggg 2880

ttaggaaaag accccttctc agagacggca ctctcaaaca ccagcccctc tatcggcagc 2940
 ctgtctgaag ttctttgaag cccctgtcac tctctgaaat gttctgtctt attcattaag 3000
 tgattgatgg tccctacctc cactggaata taacagatgc ctggagagca gggaccctgt 3060
 ctgtctggtt cactgctcct ctcttccagc acctggcaca tggcaggggc acgggtctca 3120
 gatgagagac tgcctgggag gatgagcttt gctggaagct ggggttggag gtgttgatgg 3180
 gggaagggcc cccagccctg gctgagtagt gtgtggccag ggtagctcag cctgtgcagg 3240
 tgtctgcagt ggagagaggg ggagggcaca catgtggaag cttcggaaaag ctgatttcca 3300
 gatgagctgt ggggtggtggg gggatgtgag ggtgatttac ccacaaatgt cctccccttg 3360
 gagccctgtg ggctgttta caggagggcg gaggctgcct tggggcacag aggcagggcc 3420
 gtgagtcacc ccatgaagtg ggccagcttc caggccagga ggggaagcac agaataacaa 3480
 atggtggttt cccaaaccct gcagcctcta ctacatccgg ttctcctctc acacaacagg 3540
 gcggatccag gcctatagcc aggtgtctac caccactgag gggcgtcatg gggagctaca 3600
 aggggtctcc agaggcagcg gggatggcgt tggctctggg ggcaccagtg tgacagggca 3660
 gggcaccgag ctgtggccga ggggcagagt gtcagagggc ctcttgggga atgctgtctc 3720
 tggcagagag gcagactgcc tccactgagg gaagaggatc tgaggataga gaatggccgc 3780
 gtgccaagtt ggaggccgcc attgccgagg ctgtggagcg tggggagctg gcgctcaagg 3840
 atgctcgtgc caagcaggag gagctggaag ccgccctgca gcgggccaag caggatatgg 3900
 cacggcagct gcgtgagtac caggaactca tgagcgtgaa gctggccctg gacatcgaga 3960
 tcgccacctc ccgcaagctg ctggagggcg aggagagccg gttggctgga gatggagtgg 4020
 gagccgtgaa tatctctgtg atgaattcca ctggtggcag tagcagtggc ggtggcattg 4080
 ggctgaccct cgggggaacc atgggcagca atgccctgag ctcttccagc agtgcgggtc 4140
 ctgggctcct gaaggcttat tccatccgga ccgcatccgc cagtcgcagg agtcccgcg 4200
 actgagccgc ctcccaccac tccactctc cagccaccac ccacaatcac aagaagattc 4260
 ccaccctgc ctcccatgcc tggctcccaag acagtgagac agtctggaaa gtgatgtcag 4320
 aatagcttcc aataaagcag cctcattctg 4350

<210> 1742

<211> 4038

<212> DNA

<213> Homo sapiens

<400> 1742

acagccgttc	agaaggtcaa	gaggtggccg	agctcagcgc	tggcttttaa	agccctgttt	60
cacactggaa	aggtggccca	gtgctgtggc	ctggcatgtc	caggtggctc	tctgtcacgg	120
gtctggggtc	cacctgcttg	ccgtgctctg	tgggcagggc	aggctggggg	cccacagaac	180
agcacagaag	gaaggctggg	agcactggcc	ccgggtccac	ctggccatcc	tggaatctgg	240
tggcaccagc	gtccccaggc	ccagagcaca	ggaacacctt	cccagagagt	cgatcatgggt	300
tttaaaaatg	aagatcgtct	tttttgtctg	gagatgcttt	ttcttatttt	tgaaacccaa	360
cgtatatatt	tatgtatttt	taagtaaagg	ggaatggaac	ccagttttgc	taacaagata	420
acccaaactg	cccagtgcct	ggccttgtgt	ctggcgacct	ctgggccctt	ggcctccgga	480
gcaggtcctg	gggctggggg	ggtgtgaatg	atgctgggtc	gtaacttttg	gttgagttaa	540
tgggcggcag	gtttcagagc	ttatggagac	caggtccttc	agtcatgcct	gatgcccttg	600
gtcttccaga	agcaaaaaca	gctcgggaat	gcgaaggcac	cggagtccaa	agttggcagc	660
caacaacaac	aacaacaaaa	gaaaaggccg	ggcacgggtg	ctcacgcctg	taatcccagc	720
cctttgagag	gctgaggcag	gtgggttgct	ggagcccagg	agtttgagac	cagcctgggc	780
aacatggcaa	gatcccatct	ttacatgcct	gggcgtgggtg	gcgcgtgcct	gtggtcctag	840
ctactctgga	ggctgaagtg	ggaggattcc	cttgagccag	gaattggagg	ctgtagttaa	900
gtatgattgc	accactgcac	tccagcctgg	gtgacagagt	aagaccctga	atcacggaca	960
gagggtactg	ttgggagccc	tggggagaaa	tccatgctct	tggctgaagc	tctgagatcc	1020
ttgttgctgt	caggggtgctg	cccccgccc	cccggggagg	ggcttttgtc	tttgcacgc	1080
ctgcttttcc	agatagtcta	aaaaaagact	tctgaagaca	aggacgttca	cgaggaaaaa	1140
cttgccattt	tgagcttttt	aagcagttgc	tgaaagcttg	gcagactgcc	tcaatttttc	1200
ctaagtaggc	gtcaatgaag	tcaggtccag	gccttgggtg	gtctggaatg	cttcaagcac	1260
attcgaacac	ttgatcgtaa	gggagagccg	gtactttgga	accggaactc	acccgaggct	1320
gtggccaccg	catgggcagg	ctagctgggg	gacaagcccc	atatctttgg	gaacaagggt	1380
ttgcacagcc	accctgggat	gccctgggac	tcctgaccgc	acaggacccc	agcagggagg	1440
ccgcctggat	tggagggtct	ggtctaacag	ccggacttgg	tcttgaaccg	tcgccctgtc	1500

ccgcacaggc gcctgctgag cctggagccc tggcagaggc gggctctgggg agtggagctg 1560
ccgggaggcc tcccatttct cacagccttg gtgttctccg ggtcaccagc aggaccgtca 1620
aatgctggat ttgacaaact atgtagaatg ttctttgtgt ctttaagatc ttcttgtggt 1680
cctattttga cattttgtgc attttcagac acctgcgggt cacgtgggtg gatgggaagc 1740
tgggcacctg gtgaggggtg aggatgttga gagccggagc tgcgttttgt ctctgttgat 1800
gtggcgaggc cctgggttgg tctactgggat tttttttttt ttgagacggt gtctcgctct 1860
gtcgcccagg ctggagtgcg gtggcatgat ctcggtcac tgcaacatct gcctcccggg 1920
ttcaagcgat tctcctgcct cagtctcctg agtagctggg attacaggcg tcaccacacc 1980
tggctaattt ttgtattttt agtagagaca gggtttcacc atgttggtca ggctggctct 2040
gaactgatct caggtgatcc gcccgtctcg gcctcccaa gtgctgggat tacaggcgtg 2100
agccaccgcg cccggccggg cgttgggatt ttaacagccc tgaggcccct cacgctgcca 2160
gggtgccagc caccctgcag ccctgctccc ctgcccacac gcagaagcca ccagaggctt 2220
ctggactgag cccccactgt cctgcagccg ggctggcctg tccacaccac agggcgtgct 2280
cagctactga gcagaagcgt cacggacagg gcagatcagg ccaggacaaa gctcttccgc 2340
cacaggcggg ggtctgaagg catctcagag ggcccccaa caaggacgc tgcctggaaa 2400
ccccgggaca agatgacctc ggttcagatc ttagcacctt ctggcaacct tagagaaagc 2460
ttctggaggg aggggctggt tcccaggatg ggcagaagcc ggaaagtctc agactgagt 2520
accctcgggg gcttcagaag gcactgggtg ggctctgcca gagtgagaag gcagctgatg 2580
gctgctggag ccagccccgg gagtgggggt ccagctatgg tctggagagg gggacttgag 2640
ggttgcagtg gccacacaga cggggcacag gagccaaagg aaggacaca gcaaagccca 2700
agggtaaaac ggcgcgccgt ggactggtct gagggcagag gctgtagggg agcgaggggc 2760
ggtgtggctg acaggtggac acaggacac gtgtcctgtg gacttggccg ctcagtgggg 2820
gtgtgtcccc cagcagtggc gtgtgaggga tggctactct gatgggacac tgaccacttg 2880
gcctccagca agatctaggc ccaagtctag gctgaagccg cccactcagc cccgggacat 2940
cgtccccggc agctctgctg agcacgccag ctccggcact ctccgggagt catggccgga 3000
agtcaactgt cctggcttcc agggccacac cttggccagg cctggtgatg gtcatttcca 3060
gccgctccag ttgggctgat ggggccacat gagggccggg atagaaggtg gctgcgctca 3120
gacacccctc ccggccccac tggatgcccc gggcgctgac ctgcaggact cggatgggtt 3180
ttctcctgcc acccctgcct ggccggccac catcccagcg ccagcgccct cctgagaggt 3240

gcaggggccc cgtggggcct cccagagtgg caggttggca gcctgcacgc cggtagacggc 3300
 gtccttctcc gtggtgaggc ttggtccctc ctcgccagaa acaccaattc tctgacgtga 3360
 gctgcacatc cactgcccag ccatgtttac tcttctgcct cctgtagacg cagccgcggc 3420
 ggctctccct ggcaggccac ccgccgtcct gccttttctc cgggtcaggc cgcctgtctg 3480
 ccgggctcca cgatgagcgc gttctcaagc tgagcaggcg ccagaatccc atagagaggc 3540
 ttgttgagac acagcttccc cacccccagc tcggacgcag gggcctggcg tggcctcctc 3600
 acgggcacgg tgtggagaca ccatggcggt taccgtggtc tgccgggtgc atgagcccct 3660
 ggggtggccc cgtcccttgt ttctgaccag ccggatcctc tccagcggca ggagcagaga 3720
 gggcccgag gtccagacgg tgctctctgc ggccagcatg ccgcggaggt ggccgagtga 3780
 gtgtggcccc tcccttgacg gctgaccag ctggatgttg acagccacct ggcccagtgc 3840
 ttggccgaaa gcacagaaga cgtgacgtgg tgagcgccat ccaagagccc tgcgcagagt 3900
 gcagcgcccc gacacgtct ccccgccag cagccccgcc tctcggtcc cccgccagca 3960
 gccccgcctc tcggctcccc cgcattgcga ttaaagcagg gcgggtcct gtctgtctct 4020
 gtgttgtgat gaaacgtc 4038

<210> 1743

<211> 3856

<212> DNA

<213> Homo sapiens

<400> 1743

agtacaccct cctccagctc caggtgaatg gcgtcctgcc catcctcccc ctgctctttc 60
 cagtcctctg ggttctggca actgcctgtg gagaggcccc tgtcctggcc cagatgagca 120
 aggccctacc cagctccctg ctggctaagt tctcagagga tactctcagc agctatacgg 180
 aggctgtctc ctctcaggaa atgctgcgt gcatttgggg ccacttcctg aggggtgctcg 240
 gggggacatc gccaacgtg agccacagtt ccagcctgct gcacagcctg ggctctgtca 300
 cggtcctgtg ctgtgtggac aaacagggga tcctgtcatg gccaaatccc agcccagaga 360
 ctgtactgtt cttcagcggg aaggtggagc cccctcacag cagccatgag gacctcaccg 420

atggcctatc caccgcctcc ttctgccatc ccgaggtaga ggaggagccc catgaacgag 480
acgccctcct ggctggctcc ctgaacaaca ccctgcacct ttccaatgag caggagcgtg 540
gcgactggcc tggcgaggct cccaagcccc ccgagcccta ttcacaccac aaagcgcattg 600
gccgcagcaa acacccatct ggctccaaca ccagcctgg gatggagagc gaccctacg 660
aagcagagga ctttgtgtgt gactaccacc tggagatgct gagcctgtcc caggaccagc 720
agaacccctc ctgcatccag ttgatgact ccaactggca gctgcacctc acctccctca 780
aaccctggg cctcaatgtg ctgctgaacc tgttgtatgc cagcgtcacc gagcgcctgt 840
gccgattctc cgaccacctg tgcaacattg ccctgcaaga gagccacagc gccgtgtgtc 900
ccgtccatgt gccctggggc ctctgcgagc ttgcccgcct cattggcttc actcctgggg 960
ccaaggagct tttcaagcag gagaaccatc tggcgctgta ccgcctcccc agtgccgaga 1020
caatgaagga gacatcgctg gggcggtctt cctgtgtcac caagcggcgg cctccctca 1080
gccacatgat cagcctcttc attaaagaca ccaccaccag cacagagcag atgctgtccc 1140
atggcaccgc tgatgtggtc ttagaggcct gcacagactt ctgggacgga gctgacatct 1200
acctctctc gggatctgac agaaagaaag tgctggactt ctaccagcga gcctgcctgt 1260
ctgggtattg ctctgccttc gcctacaagc ccatgaactg cgccctgtcc tctcagctca 1320
atggcaagtg catcgagctg gtacaggtgc ccggccaaag cagcatcttc accatgtgcg 1380
agctgcccag caccatcccc atcaagcaga acgcccgcg cagcagctgg agctctgacg 1440
aagggatcgg ggaggtgctg gagaaggaag actgcatgca ggccctgagc ggccagatct 1500
tcatgggcat ggtgtcctcc cagtaccagg cccggctgga catcgtgcgc ctcatgtatg 1560
ggcttgtcaa cgctgcctc cgctttgtct acttctcttt ggaggatgag ctcaaaagca 1620
aggtgtttgc agaaaaaat gggcctggag acaggctgga actgccacat ctccctcaca 1680
ccaatggtg acatgcctgg ctccgagatc cccccctca gcccagcca cgcaggctcc 1740
ctgcatgatg acctgaatca ggtgtcccga gatgatgcag aagggtcct cctcatggag 1800
gaggagggcc actcggacct catcagcttc cagcctacgg acagcgacat cccagcttc 1860
ctggaggact ccaaccgggc caagctgccc cggggtatcc accaagtgcg gcccacctg 1920
cagaacattg acaacgtgcc cctgctagtg ccccttttca ccgactgcac ccagagacc 1980
atgtgtgaga tgataaagat catgcaagag tacggggagg tgacctgtg cctgggcagc 2040
tctgccaacc tgcggaacag ctgcctcttc ctccagagcg acatcagcat tgccctggat 2100
cccctgtacc catcccgttg ctctgggag acctttggct acgccaccag catcagcatg 2160

gcccaggcct cggatggcct ttctcccttg cagctgtcag ggcagctcaa cagcctgccc 2220
tgttccctga cctttcgcca ggaggagacc atcagcatca tccggcttat cgaacaggct 2280
cggcatgcca cctatggcat ccgtaagtgc ttctctttcc tgctgcagtg ccagctgact 2340
cttgtgggtca tccagttcct ttcttgcttg gtccagctgc cgccactcct gagtaccacc 2400
gacatcctgt ggctgtcctg cttttgctac cctctgctca gcatctctct gctcgggaag 2460
ccccccata gtcctcatcat gtctatggca acggggaaaa acctccagtc cattcccaag 2520
aagaccacagc actacttcct gctctgcttc ctgctcaagt tcagcctcac catcagctcc 2580
tgccatcatct gctttggctt cacactgcag agcttctgtg acagctcccg ggaccgcaac 2640
ctcaccaact gtcctccgt catgctgccc agcaacgacg acagggtcc agcctggttt 2700
gaggactttg ccaatggact gctgtcggct cagaagctca cggccgcctt gattgtcctg 2760
cacactgtct tcatttccat caccatgtg catcgacca agcccctgtg gagaaagagc 2820
cccttgacca acctctggtg ggccgtgaca gtgcctgtgg tgctgctggg tcaggtggtc 2880
cagacggctg tggacctgca gctgtggaca cacagggaca gccacgtcca ctttggcctg 2940
gaggacgtgc ccctgctgac atggctcctg ggctgcctgt ccctggtcct tgtggtggtg 3000
accaatgaga tcgtgaagct acatgagatt cgggtccgag tccgctacca gaagcgacag 3060
aagctgcagt ttgaaactaa gctgggcatg aactctccct tctgagccac tggctgtggt 3120
ggctgtagtt gccccgtcc ctggggctaa agccagaccc atttctgaac aggggagttt 3180
gtatcatgaa tgtttccagg ttgtctcctg caccctggc actggaaacc cagctccccg 3240
tgtcagaccc cgctgtcttc ctgagccctg gggctcactg tggaggagct gacggcctgg 3300
gcccttggcc agtcctggct cttccctggg cctcaccagg gacactcttg aatgtatggc 3360
ctcaggcgct ccctagaggg ggcctaaacc cctcacctg tgagctaccc ctttaggga 3420
tcccttgccc ccttgagat cccttgcccc ccagtgcctc tgctcgtggg tccctggaca 3480
cggccttgaa gccaaccttc tttggaggag caacagcagc agccttggcc gacgcgtcca 3540
actcccaagg ctgccgtgga gggcaggggg gtggtgcttg cctggatgtg gccccagtg 3600
cctccccctc ctccctctgt gggggagtct cccgcctgaa cctgaagatg gagcagggcc 3660
cccgttctgc cctggagcct cttctgtgc ctggctcaag ctggctgcct gtcagtcttg 3720
gggaatctgg ccaggtctc ctcagcctct gccccagttc tgggagaagt ttctactggt 3780
gtatatTTTT tactggaaat gagcctttta ggaatgaatg tagactggtt tgtattaaaa 3840
tgtgtcaatt gctaag 3856

<210> 1744

<211> 5459

<212> DNA

<213> Homo sapiens

<400> 1744

ctggcaacct ctgggactcc atcctccctg cctggccaca cagcccctgt ccctctcttg	60
ataccattca ccctcaactt taccatcacc aacctgcatt atgaagaaaa catgcaacac	120
cctggttcca ggaagttcaa caccacggag agggttctgc agggctctgct caagcccttg	180
ttcaagagca ccagtgttgg ccctctgtac tctggctgca gactgacctt gctcagacct	240
gagaaacatg gggcagccac tggagtggac gccatctgca ccctccgcct tgatcccact	300
ggtcctggac tggacagaga gtggctatac tgggagctga gccagctgac caacagcggt	360
acagagctgg gcccctacac cctggacagg gacagtctct atgtcaatgg cttcacccat	420
cggagctctg tgccaaccac cagtattcct gggacctctg cagtgcacct ggaaacctct	480
gggactccag cctccctccc tggccacaca gcccctggcc ctctcctggg gccattcacc	540
ctcaacttca ctatcaccaa cctgcagtat gaggaggaca tgcgtcacc tggttccagg	600
aagttcaaca ccacggagag agtcctgcag ggtctgctca agcccttggt caagagcacc	660
agtgttggcc ctctgtactc tggctgcaga ttgacctgac tcaggcctga aaaacgtggg	720
gcagccaccg gcgtggacac catctgcaact caccgccttg accctctaaa ccctggactg	780
gacagagagc agctatactg ggagctgagc aaactgaccc atggcatcat cgagctgggc	840
ccctacctcc tggacagagg cagtctctat gtcaatgggt tcacccatcg gaactttgtg	900
cccatcacca gcactcctgg gacctccaca gtacacctag gaacctctga aactccatcc	960
tccctaccta gacctatagt gcctggccct ctcttggtgc cattcacct caacttcacc	1020
atcaccaact tgcagtatga ggaggccatg cgacacctg gctccaggaa gttcaatacc	1080
acagagaggg tcctacaggg tctgctcagg cccttggtca agaataccag tatcggccct	1140
ctgtactcca gctgcagact gaccttgctc aggccagaga aggacaaggc agccaccaga	1200
gtggatgcc a tctgtacca ccacctgac cctcaaagcc ctggactgaa cagagagcag	1260

ctgtactggg agctgagcca gctgaccac ggcactactg agctgggccc ctacaccctg 1320
gacagggaca gtctctatgt cgatgggttc actcattgga gcccataacc aaccaccagc 1380
accaccggcc ctctcctgat gccattcaca ctcaacttca ccatcactaa cctacagtat 1440
gaggagaaca tgggtcacc tggctccagg aagtccaaca tcacggagag tgttctgcag 1500
ggtctgctca agcccttggt caagagcacc agtggtggcc ctctgtattc tggctgcaga 1560
ctgaccttgc tcaggcctga gaaggacgga gtagccacca gaggtagcgc catctgcacc 1620
caccgccctg accccaaaat ccctgggcta gacagacagc agctatactg ggagctgagc 1680
cagctgaccc acagcatcac tgagctggga ccctacaccc tggataggga cagtctctat 1740
gtcaatgggt tcaccagcg gagctctgtg cccaccacca gcaactcctg gactttcaca 1800
gtacagccgg aaacctctga gactccatca tccctccctg gcccacagc cactggccct 1860
gtcctgctgc cattcaccct caattttacc atcactaacc tgcagtatga ggaggacatg 1920
catcgccctg gctccaggaa gttcaacacc acggagaggg tccttcaggg tctgcttatg 1980
cccttggtca agaaccagc tgtcagctct ctgtactctg gttgcagact gaccttgctc 2040
aggcctgaga aggatggggc agccaccaga gtggatgctg tctgcacca tcgtcctgac 2100
ccaaaagcc ctggactgga cagagagcgg ctgtactgga agctgagcca gctgaccac 2160
ggcatcactg agctgggccc ctacaccctg gacaggcaca gtctctatgt caatgggttc 2220
acccatcaga gctctatgac gaccaccaga actcctgata cctccacaat gcacctggca 2280
acctgagaa ctccagcctc cctgtctgga cctacgaccg ccagccctct cctggtgcta 2340
ttcacaatta acttcacat cactaacctg cggtatgagg agaactgca tcacctggc 2400
tctagaaagt ttaacaccac ggagagagtc cttcagggtc tgctcaggcc tgtgttcaag 2460
aacaccagtg ttggccctct gtactctggc tgcagactga ccttgctcag gccaagaag 2520
gatggggcag ccaccaaagt ggatgccatc tgcacctacc gccctgatcc caaaagccct 2580
ggactggaca gagagcagct atactgggag ctgagccagc taaccacag catcactgag 2640
ctgggcccct acaccctgga caggacagc ctctatgtca atgggtttcac acagcggagc 2700
tctgtgcccc cactagcat tctgggacc cccacagtgg acctgggaac atctgggact 2760
ccagtttcta aacctggctc ctggctgcc agccctctcc tgggtgctatt cactctcaac 2820
ttcaccatca ccaacctgcg gtatgaggag aacatgcagc accctggctc cagggaagttc 2880
aacaccacgg agagggtcct tcagggcctg ctcagggtccc tgttcaagag caccagtgtt 2940
ggccctctgt actctggctg cagactgact ttgctcaggc ctgaaaagga tgggacagcc 3000

actggagtgg atgccatctg caccaccac cctgaccca aaagccctag gctggacaga 3060
gagcagctgt attgggagct gagccagctg acccacaata tcaactgagct gggcccctat 3120
gccctggaca acgacagcct ctttgtcaat ggtttcactc atcggagctc tgtgtccacc 3180
accagcactg ccagccatct cctgatacta ttcaccctca acttcacat cactaacctg 3240
cggatatgagg agaacatgtg gcctggctcc aggaagtcca acactacaga gagggtcctt 3300
cagggcctgc taaggccctt gttcaagaac accagtgttg gccctctgta ctctggctgc 3360
aggctgacct tgctcaggcc agagaaagat ggggaagcca ccggagtgga tgccatctgc 3420
accaccgcc ctgacccac aggcctggg ctggacagag agcagctgta tttggagctg 3480
agccagctga cccacagcat cactgagctg ggcccctaca cactggacag ggacagtctc 3540
tatgtcaatg gtttcacca tcggagctct gtacccacca ccagcaccgg ggtggtcagc 3600
gaggagccat tcacactgaa cttcaccatc aacaacctgc gctacatggc ggacatgggc 3660
caaccggct cctcaagtt caacatcaca gacaacgtca tgaagcacct gctcagtcct 3720
ttgttccaga ggagcagcct ggggtgcacgg tacacaggct gcagggtcat cgcactaagg 3780
tctgtgaaga acggtgctga gacacgggtg gacctcctct gcacctacct gcagcccctc 3840
agcggcccag gtctgcctat caagcaggtg ttccatgagc tgagccagca gacctatggc 3900
atcaccggc tgggccccta ctctctggac aaagacagcc tctaccttaa cggttacaat 3960
gaacctggtc cagatgagcc tcctacaact cccaagccag ccaccacatt cctgcctcct 4020
ctgtcagaag ccacaacagc catggggtac cacctgaaga ccctcacact caacttcacc 4080
atctccaatc tccagtattc accagatatg ggcaagggtc cagctacatt caactccacc 4140
gaggggggtcc ttcagcacct gctcagaccc ttgttccaga agagcagcat gggccccttc 4200
tacttgggtt gccaactgat ctccctcagg cctgagaagg atggtgcagc cactggtgtg 4260
gacaccacct gcacctacca ccctgacct gtgggccccg ggctggacat acagcagctt 4320
tactgggagc tgagtcagct gacctatggt gtcacccaac tgggcttcta tgtcctggac 4380
agggatagcc tcttcatcaa tggctatgca cccagaatt tatcaatccg gggcgagtac 4440
cagataaatt tccacattgt caactggaac ctcaagtaac cagacccac atcctcagag 4500
tacatcacc tgctgaggga catccaggac aaggtcacca cactctacaa aggcagtcaa 4560
ctacatgaca cattccgctt ctgcctggtc accaacttga cgatggactc cgtgttggtc 4620
actgtcaagg cattgttctc ctccaatttg gacccagcc tgggtggagca agtctttcta 4680
gataagaccc tgaatgcctc attccattgg ctgggctcca cctaccagtt ggtggacatc 4740

catgtgacag aaatggagtc atcagtttat caaccaacaa gcagctccag caccagcac 4800
ttctacctga atttcacat caccaaccta ccatattccc aggacaaagc ccagccaggc 4860
accaccaatt accagaggaa caaaaggaat attgaggatg cggtgagaag ggggtgctca 4920
accaactctt ccgaaacagc agcatcaaga gttatTTTTt tgactgtcaa gtttcaacat 4980
tcagggtctgt cccaacagg caccacaccg ggggtggactc cctgtgtaac ttctcgccac 5040
tggtctggag agtagacaga gttgccatct atgaggaatt tctgcggatg acccggaatg 5100
gtaccagct gcagaacttc accctggaca ggagcagtgt ccttgtggat gggtattctc 5160
ccaacagaaa tgagccctta actgggaatt ctgaccttc cttctgggt gtcctctca 5220
tcggcttggc aggactcctg ggactcatca catgcctgat ctgcggtgtc ctggtgacca 5280
ccgcccggcg gaagaaggaa ggagaatata acgtccagca acagtgccca ggctactacc 5340
agtcacacct agacctggag gatctgcaat gactggaact tgccggtgcc tggggtgcct 5400
ttccccagc cagggtccaa agaagcttgg ctggggcaga aataaacat attggtcgg 5459

<210> 1745

<211> 4596

<212> DNA

<213> Homo sapiens

<400> 1745

tttattatag tccaaaagta tccagagctg tccagttttg ccaacttgaa ataattcttt 60
ttacttcaag ataaagccaa tatttaacat ttctgtctgg caccgattga atcaaatgt 120
caggggctca acttttgtga ctttcagcat caccttcttt gtctccctca ggaaattctg 180
tgtaaaaggg cagtcaaca cctgccaat tcttagggat tggagggaaa tgctggcctg 240
taggggtccaa gggcctcagc caagggtaga ggcctcacct caggcaggat gtaagggtgg 300
ctccttcct ctgccctcca gctcctgctc caccacctc tccagacccc ttacagtagc 360
cattccctgt ggccactggg ggaagggaac cagcggacgc tacttgactt ggttcagctg 420
ccctctgtgc ctagcctgcc agcattgtcg agaggtaaag aacacagaac acacaccag 480
cccgaccttc taggttgagt tacaccttgg agtgttcctt ttgggcagtg attgatgttg 540

atTTTTgtat ataagtgagt gagatgttgt tacaattttc acagcactta gaacaagggtg 600
ttagatgttg tggcaccttt gcctaattat ggcatttgtg cagattgttc tcagtcatgt 660
aggttttagtc tcaaaacatc cactcctcct ccctgtgtag acagaggtaa gctgtggctg 720
tggatgagag catctgaatg aattgtatcc atttcagatg ttagctttaa aagctatagg 780
gtcatgttag aagtttggtt cccgccaaat gagtaatttt agagatctgc acatcagatc 840
tttatgggtc ttggaaaaat gtcctcctc agttcaattt tctgccggga atgtgtttct 900
aaggcccttt aggtattggg catcttcagg tttatgtggc acatgggtca ttagggccat 960
aggcccccatt tctgcatcag gagggctgag tccagatgtt ctggtttaat atttatgagt 1020
ggcttccatt gaaatacctg tccttccgag agaagtggc ctaccccctg cctctctatt 1080
ccgggtgagt gagctgaaaa ctgcctcctg cttttctcat tcacatggga ttctttcaga 1140
acagagtttt agataggctt tgaattgtgt ttttgccttt tgccataatc ttgtgtcttt 1200
ggtagcaaca gtcagggaag tgattgtctt acccccatca ctgtgccaag ccacaggctt 1260
gggcggggcc ccgggatgac agccttcggt gggttcagcca ctgtggctgt ctggacaggc 1320
atcctcttct tccattcctg ttccatgtgc cccctcgcga tgctgtctgc tcacttgaag 1380
gagatcttct cagatggagg gtgtagctgg tggagaccct ggggaaacct tcccccaaa 1440
tcacaggggg tgtctggtac tacttgtgt gggtgggcct cctcactagt cctgctctct 1500
ctcttcccat gccagggca gcctgtcaga agccagaatg gtagcaggca gagagaggcc 1560
tcagtccaga gggccatgga aagtggagtc atggagcaca gtgcctgcag agctgctgtt 1620
tttccctccc ttigaaatcg agggctcatc ctaaattgct cttcagtgcc aacaagcaaa 1680
gggacgcca cacaagttct tcagcatttt gtacagattt actgaacgca actcaggcat 1740
ccttaaggaa gctctgcagc ttctcctgg accagtattt catgaaaatc cagtaatctt 1800
gggctctaag gagcagggtg gccagtcatg tgacttggca ggggaaagg ctaaggttaa 1860
accacattta gcaggcagat tacattttca gccactttgc catgactctt cctctctctt 1920
tttggggggg gagcatcctt ttaaccatat tcccctatcc cttatcctcc tttatccctt 1980
caaagcacca aatgatatat agctgtagta agcaaaaatc tggtgaaatg tttttaaaat 2040
tacatgctgc tgaacgatag ggccataagg aaagtgtaga tatgggaatg tgtgtatgtg 2100
aatgagtcag tgaatttgat tttttttatt tgtacaaatg tatggggtac atgagaaatt 2160
ctgttacatg tatataatgc atgtgatcag gtcagggtta ggggtgtctgt caccgagtg 2220
cagtacattt ttgctaagta tagtcacct actccactat ctaacattga atttatcct 2280

tctatcttac tatgtgttta taccctttaa tccacttctc ttcacccctc tccctctcca 2340
cattcaccct cccagtctct ctcttttcac tctctacctc catgtgttta aattatntag 2400
ctcctgaata taagtgagaa catgggatat ttgcctttgt gtgcctgggtg tatttcactt 2460
aagataatga cttccagctc catccatgtt gctgcaactg acatgatttc attctttttg 2520
actgaagagt attcctttgt gtatatatac tacattttat ttatccattc atcccttgat 2580
ggacactgag gttgatttca tatctttgct tttgtgaata gtgccacaat aaacatgcga 2640
atgcaggcat ccttttgata tattgacttt ttttcctttg ggtagatacc ctgtgggtggg 2700
attgctggat caaatgataa ttcttagttt tttgagaaat ttccatagcg gtttctatag 2760
tggttttctt agttgacatt cccaccaaca gtgggagtcc ttttctctgc atcctcgcca 2820
ggatctgtta tttttttgtc tttttaacaa tagccatact gactggggta agatatctca 2880
ttgtgggtttt gatttgtatt tctctgatga ttaatgatgt tgagtatttt ttattcacct 2940
attgactgta catcttcttt tgataattgt ctattcatgt cctttgccag tttttaatag 3000
gatttttttt ttcctgttaa gtaccttatg tactctggat atagtcccct gtcagatgag 3060
tgatttgcag atattttttc ccatttggca ggttttctct ttacctgttt gattatttcc 3120
tttgctgtgc agaagctttt aatttagtta agtctcattt gtctattttt gtttttgttg 3180
cctgtgcttt tgaggcttta gtcataaatt ctttgcctag atcaatgtcc ataagagttt 3240
tccctagggt ttctttagt attcttacag tttcaggctc tgagttgaag tcttgagtcc 3300
attttgagtt gattttttgtg tgtggtgaaa gataggggtc cagtctcact cttctgcatg 3360
tagcaggcca attctctgag caccatttat tgaagaggat ttcctcttcc cagtgttaagt 3420
tctcattggc tttgtcaaag atcagccggc tgtgaatata tggctttatt tgaatttgat 3480
tttaatatat aactttttaa aatctgggga aaaaagaatt acatgctacc ctgggtaata 3540
ataccagagc tgctgtcgta gttcagcagg tcagttctgt gtactcagtg tttcatccc 3600
ttctggatgc caccgtcctt ggccctctct ggaaaggccc ttgttggttt ctaagaaatg 3660
aggtagagga agtgtaagg ctggcctagc taacatgact ataaatcctc tgtgttttaa 3720
aactgctcat attgaaatta tggaaaataa tcttctgtag cagcctggac tcatctctct 3780
ccttaccag cttggatccc agaattcaat cagagagcaa cccaagggtc atgacacttg 3840
tagtgggttc tggaaacaga tctgtgagta ccaagaaaag aggataaaga ttcatcccat 3900
ccaccagtca ttcccatgca cctctaccg ccatcccctg tatccaggac aaccccttc 3960
tgacaccaaa atgcatttca ccattggctg ctgtcggtag ataatactg ctcagcattt 4020

gggacaagtt ccagacataa cttcctctta gtgaatgac ctgacaggag aaagaattga 4080
 gcttaattta tgccatctaa taacctcagt gcagctactt gggaagttag ccctccagag 4140
 tttcccccaa agttttctcc agtgaattac agtgccatat attctcattg ctaccagcgc 4200
 tgctcccaaa atctatctgc tgtttaatag tttttacctt tcaaaaatgc aagctggctg 4260
 ggcgtaggatt tttgaaagca ttcctcctgc cttggcctct caaagtgcg ggattagagg 4320
 gtgccttcta atcccagcaa tccagcactt ggaaggggtca aggcgggagg aatgcttgaa 4380
 gccaggagtg tgagaccagc ctgggcaaca tggtagagacc ttgtctctac aaaaataaag 4440
 tataaagaaa cagctaggtg tggtagatgtg tgcttggtg tgctgctactg gggaggctga 4500
 agcaggagga cctcttgagc ccagaagggt gaggtgcag tgagctggga tcgcgccaca 4560
 gcgctccagc ctggtgacag agcaagaccc tgtctc 4596

<210> 1746

<211> 4018

<212> DNA

<213> Homo sapiens

<400> 1746

gcggcggcgg cggctcgctgt cgcggcggcg agagcgcgat tccagaagcg gcctcgcggc 60
 ggcggcagcg gcggcggtta caccgggctt ggccccctcc ctctccggtt cccccctct 120
 cccccctccc ctccagcgtg gctcccaaga agtccgagac acgcggatca actcactatc 180
 ctgaaggtcc attctcccaa gaagagggga cagaaagaca gatctatttg taagaaaggc 240
 ttgggtatcc catgaacgag ccaacagaaa accgattggg gtgcagcagg actccagagc 300
 cagatataag gctcagaaaa gggcaccaac tggatggtac acgaagaggt gataatgaca 360
 gccaccaagg agatttgag cccatttttag aggcactctgt tctatcttcc catcataaaa 420
 aaagctctga ggaacatgaa tacagtgatg aagtcctca ggaagatgag ggctttatgg 480
 gcatgtcccc tctcttacia gcccatcatg ctatggaaaa aatggaagaa tttgtttgta 540
 aggtatggga aggtcggtgg cgagtgatcc ctcatgatgt actaccagac tggctcaagg 600
 ataatgactt cctcttgcag ggacaccggc ctctatgcc ttctttccgg gcctgtttta 660

agagcatttt cagaatacac acagaaacag gcaacatttg gacacatctc ttaggttggtg 720
tattcttcct gtgcctgggg atcttttata tgtttcgccc aaatatctcc tttgtggccc 780
ctctgcaaga gaaggtggtc tttggattat ttttcttagg agccattctc tgcctttctt 840
tttcatggct cttccacaca gtctactgcc actcagaggg ggtctctcgg ctcttctcta 900
aactggatta ctctggtatt gctcttctga ttatgggaag ttttgttcct tggctttatt 960
attctttcta ctgtaatcca caaccttgct tcactactt gattgtcatc tgttgtctgg 1020
gcattgcagc cattatagtc tccaatggg acatgtttgc caccctcag tatcggggag 1080
taagagcagg agtggttttg ggcctaggcc tgagtggaaat aattcctacc ttgcactatg 1140
tcactctgga ggggttcctt aaggccgcca ccatagggca gataggctgg ttgatgctga 1200
tggccagcct ctatatcaca ggagctgccc tgtatgctgc ccggatcccc gaacgctttt 1260
tccctggcaa atgtgacatc tggtttact ctcatcagct gtttcatac tttgtggttg 1320
ctggagcttt tgttcacttc catggtgtct caaacctcca ggagtctcgt ttcatgatcg 1380
gcgggggctg cagtgaagag gatgcactgt gatacctacc agtctccagg gactatgacc 1440
ctaaaccagg gcctgcggca cttgcgggcc tccctgctgg ctactgatgc cagtaccaga 1500
ggagcccca aactttgaca gcctcgtggg ctttgtgacg gccaggggc tctgcgtggt 1560
acatgactga gaagagaaaa acaaaaataa atcatacctc aaaggatgga gtgcatcaat 1620
tgggagaaaa ggagacatag cccaaacct ggcttattct tgggatctac tgattgcggg 1680
ctctgcaaga cccttgcaa actggcttct gatccatata atatttattt gtagaagatg 1740
gcgaaacagt ttagctggtg gttctttctt ctcccttct ctctctctat gacaataata 1800
caaaccaatt taagtgaaca tttatatccg ataaggggtg ggagtgtgat tttaaatgct 1860
cttttgggag aacaaagaaa ttaatgtaaa taagatttct aactgtttaa ataagacttt 1920
atataaatgt ttaaaacata ggggtaaggg agggagggag aatttttgta tagaatgaaa 1980
catgcaagta ccacacactg tttgaatttt gcacaaaaag tgactgtagg atcaggtgat 2040
agccccggaa tgtacagtgt cttggtgcac caagatgcct tctaaaggct gacatacctt 2100
ggaccctaata ggggcagaga gtatagccct agcccagtgg tgacatgacc actccctttg 2160
ggaggcctga ggtagagggg agtggtatgt gttttctcag tggaagcagc acatgagtgg 2220
gtgacaggat gttagataaa ggctctagtt aggggtgtcat tgtcatttga gagactgaca 2280
cactcctagc agctggtaaa ggggtgctgg aggccatgga ggagctctag aaacattagc 2340
atgggctgat ctgattactt cctggcatcc cgctcacttt tatgggaagt cttattagag 2400

ggatgggaca gttttccata tccttgctgt ggagctctgg aacactctct aaatttcct 2460
ctattaaaaa tcaactgcct aactacactt cctccttgag ggaatagaaa tggacctttc 2520
tctgacatag ttcttggcat gggagccagc cacaaatgag attctgacgt gtccaggttt 2580
ctcctgagct catctacata gattggtaga cctttccttt ggattaggaa agatgagttt 2640
tacctctggt acactgtctt ggtaagcctg gatgtgacag acacctcggc tctccttgaa 2700
taagaaagcc agcagaactc ttaaagccag ttgtagtacg gagttgtcag cactcactga 2760
acctcacttt acagggataa gagtggtgtg gcattttaaa tacaatggta tgttattgcc 2820
agggagtgag gtacaagacg atggctcatg tcacaggcct acctgatacg gtgtcagaga 2880
aagtgggtgg gaaaggatct ggttcatgga attctgatct tggcccatag gtgaaccacc 2940
aaaatagtgc tcgagtctta ggttactgtc atcaaagact tgggatgact ccattatctc 3000
ctggggttgt ggggtattaga actaaatatg gaggtcctga gcatggggac tggcgtcctc 3060
agtaggtgtt tgggaatatg ggaagggtct cctatttatt caatagagtt ttctcagtta 3120
ttttcctccc ttgcccttgc aatctccagc aaaagggtggg atctaggaag aaagaatcca 3180
gtgtagaagt tgagaagaac ttgaacgttt tggttctgga taaggctact gtcctaggtg 3240
ctaggtggac cgagcaaaag actcagtgga tgaactgggt cagtgcctga cagaataaag 3300
aacagtatta atccctttga gaaagcacag tccagcagga cagtggccat ttggacagaa 3360
gcccacttag tttcttggga gcaacagcac gtatcagaag ccagacttgc tcttcggtca 3420
tgcactttgg gatacagcgt ataggtgcag ccctgtctca acaccaacag aagtagcagc 3480
ctctgggtgc agtcaccac accccaaagc tggaaggatc tggttcaaca tagcacaac 3540
ccttaggaaa aatgaaatta acatcactga tgtgtaatcc agtaaaatct ccctttttcg 3600
ggtgtgtatg tgggcatgtg ccattttcta tgtgtgtgtc tacgtgcagc tcaactacaa 3660
cagcctcatg tgcacttgac ctgacagtgc tcgctgagaa ctctcaccag gttggcgcct 3720
gaatgcctta ctctcagcag tcagaggctt gcttgctctg tgcagatttt taattttctt 3780
ttttggccct aggctggttg ggacctctac agcttcattc tttcaccatt aaatagtggc 3840
ctttttcagt attttcctc ttccccttta taaattatgc taaagccaca aagcacattt 3900
ttggggatca tagaaggttg gggttccaga aaggcatctg tgtgatggtt ccattgatgt 3960
gggatttccc tacttgctgt attctcagtt tctaataaaa agaaccaaat gaaatatg 4018

<210> 1747

<211> 5386

<212> DNA

<213> Homo sapiens

<400> 1747

```
ttttttgctg tggcagctgc tggagcggcg gccgcctcgg gagccggagg agaggcagcc 60
gcggagcgcc gagctggcct cgccccgagg cccggccctg ggtgtgggga accgcgctga 120
ggagctggaa actttcccgg caggagctga ctgctgggca ggaacgtctc tcaggagaaa 180
gagtggaaaga gaagattgtg aactaaggcc ccctgcccc ttttcctggt gcatgtgaag 240
ttatcaaaaa cagaaacaag tggtgaaaat gttaaaggct gtgctgaaga agagccgaga 300
gggaggaaaag ggaggcaaga aggaagcagg aagtgacttt ggtccagaga cttctccagt 360
cctgcacctt gaccacagtg ctgactctcc tgtgagcagt cttcccacag cagaggacac 420
ctataggggtg agcttgcca aaggtgtctc gatgtctctg ctttcctcac ctttgctgcc 480
tcgacagtct cacttggtgc aatcaagagt gaacaaaaaa tccccaggtc ccgtcaggaa 540
gccaagtat gtggaaagcc ccagagtgcc tggagatgca gttataatgc cattcagaga 600
agtagccaag ccaacagagc ctgatgagca tgaagcaaag gccgataatg aaccgagctg 660
ttcgccggca gctcaagaac tggtgacaag gctgggattt ttactgggag aagggatccc 720
aagtgccaca cacataacca ttgaagacaa aaatgaaacc atgtgcacag ctctgagtca 780
aggcatcagt ccttgctcca cactaacaag cagcaccgca tctcctagca ccgatagccc 840
ctgctcaacc ttgaatagct gtgtcagcaa gacggcagcc aacaaaagtc cctgtgagac 900
cattagcagc cctagttcca ccctggaaag caaggacagt ggaattatag ccacaattac 960
aagttcatcc gaaaatgatg accggagtgg ctccagtttg gaatggaata aagatggaga 1020
aggaacatga agtagaagtc aatggcaccg acacattgtg gggagaaaca gccctgactg 1080
ccgccgcagg aagagggaag ctggaggtct gtgagctgct gctggggcat ggagctgctg 1140
tgtcgcggaac aaacaggaga ggggttccac ctttgttttg tgcagcacgc caggggcatt 1200
ggcagattgt tagactgctg ttggaacgag gctgtgatgt gaacctaagt gacaagcaag 1260
gccggacgcc cctcatggtg gctgcttggt aagggcactt gagcaccgtg gaattcctcc 1320
tttcaaaagg tagcagcgtg atgccctcaa aggtttcttt tggacggaca cagagagaac 1380
```


ttcagcagac ccattcagtg ctttctgatt caaattctaa gttttctgtt aatggaaatt 1440
ttctaataaa cagtagagag aataggcaac acagccacat gcctggtatt cctcttcagc 1500
agcgatgacc attctgccag cccatccggc cagtgtcacc cttcacagtg cttgactgac 1560
acttggttca ggccgggtgt tccgcaggtg tgaacaatt tgctttctgg ctttgtcatc 1620
tcataatggt catgttctgt gaatgggctt tcctttcagg tgcagccctt tcttctctag 1680
acaaagaggg tctgtcagca ttaagctggg cttgtctgaa aggtcacagg gcagtgggcc 1740
agtatctggt tgaagaagga gctgcaatag accagacaga caagaatggc cgcacaccct 1800
tggacctggc tgccttctat ggcgatgccg agactgtgct gtacctggtg gagaaggagg 1860
ccgtgatcga gcatgtggac cacagcggga tgcggccctt ggacagagcc atcggctgcc 1920
ggaacacatc tgtagtgggt gcgctactca gaaagggagc caagttagga aatgctgctt 1980
gggcgatggc cacttccaaa cctgatattt tgattatact ttacagaaa ttaatggagg 2040
aaggaaatgt gatgtacaaa aaagggaaaa tgaagaggc agcccagagg taccagtatg 2100
ccttaagaaa gtttctcga gaaggattcg gagaggacat gagacccttc aatgaattaa 2160
gggtttccct ctatctcaat ttgtcgcgat gccgaagaaa aacaaatgac tttggcatgg 2220
cagaggaatt tgcttccaag gctctcgaat tgaagcccaa gtcctatgaa gccttttatg 2280
ccagagcaag agcgaagaga aatagcaggc aattcgtggc agctctggct gacctgcaag 2340
aggctgtgaa actctgtccc accaatcagg aagtcaagag gcttctggcc cgcgtagaag 2400
aggagtgcaa acaactccag aggagtcaac agcaaaaaca gcaggggccg ctaccagctc 2460
cactcaacga ctccgagaac gaagaggaca ccccaacccc tggcttaagt gaccactttc 2520
actctgagga gactgaagag gaagaaactt ctccccagga agaattctgtt tccccactc 2580
ccagggtccca gccatctca tctgtccctt cctcatacat ccgaaacctt caagaagggt 2640
tacagtccaa aggaaggccg gtatcgccac agagcagggc aggaatcggc aagtccctga 2700
gagagcctgt ggcccagcca gggctgtctc tgcagccctc caagcaggcc cagatcgtga 2760
aaaccagcca gcacctgggc tctggccagt cggcagtgag aatggcagt atgaaagttc 2820
agatctcttc tcagaacctt cctccaagtc ccatgccagg gagaatcgct gccactctg 2880
ctgggagcag aaccagcat ttagaggga caggtacttt cactacaaga gctggttgtg 2940
gccactttgg ggatcggtg ggccccagcc agaattgtccg cctgcagtgt ggtgagaatg 3000
gccctgcaca ccctttacca agtaagacga aaaccacaga gaggcttctg tctcattcct 3060
ccgtggctgt ggacgcagcc cctccaaacc aaggtgggct ggcgacctgc agcgacgtgc 3120

gacaccagc ttccctcacc agctcaggct cttctggttc tccatccagc agcataaaga 3180
tgtcaagttc aaccagtagt ttgacttcga gcagcagttt ttcagatggc ttcaaggtcc 3240
aaggaccaga tactagaatt aaagacaagg ttgtaaccca cggttcagagc ggtacagctg 3300
agcacagacc ccgcaacacg ccgttcattg gcatcatgga taagactgcg aggttccaac 3360
agcagagcaa tcctccaagc cgcagctggc actgtccggc accagagggg ctgctgacaa 3420
acacgtcttc tgcagctggc ctgcagtctg ctaacactga gaagccctct ctcattgcaag 3480
tgggaggata taataaccaa gccaaaacct gttctgtttc taccctgagt gcaagtgtcc 3540
acaatggggc acaagtgaag gagctagaag aaagcaagtg ccaaattcca gtccactctc 3600
aagagaacag gataactaag actgtttctc atctgtacca ggaaagtatc tccaaacagc 3660
agcctcatat tagtaatgaa gccacagga gccacctcac tgcagccaaa ccaaagcgat 3720
catttataga gtcaaattgt tgaaccttaa gaaatcccca tttgtggaat ttggaaacgt 3780
gtgttgactc ctggtggtaa attaaatagt tttttttatc agaaaaatta ttttttagcc 3840
atTTTTTTTc tttggggtgg atctgatgcc attgatatat ctaaaatgtg ggataaaact 3900
tctctaatag ctagaaatca ccataaataa gaatgctaaa cagaattgaa aattatatca 3960
acttaaaatt ttaagacagc ccagaagaca ttaatgactc tcacttatga aattgtttgg 4020
cttttgccac tttcttcctt gcctttgcta tatggtagaa tcacagaact tacttagaga 4080
ataaatatgt ctattgttca aaagtaacag gtttaactca tgaccaagtg atgtacatcc 4140
aagtgatgta ttctggaaac gatggaattt tacagttaca gttccattga gtcaaattcc 4200
atTTTtatata tacataaaaa ttaagttctg agtgagttct agctaaatat aagtgcgact 4260
gtaaacgcag ccaatTTTTt taagcagaat atgagaacac ctaagtattc tcttcatagc 4320
agttcctata aagggattaa acacttattt ctgtgttatg gttcttattc atatattttt 4380
atagcacttt tggaacctat atttgtgctt gaagggtgtt ttgatatttg gaaacagtat 4440
aagccatttg gagtcatgat tgggtggtaa gtggattcaa gctaaaatac taagaccagc 4500
attcttagtg gcgcttataa attagctctc acctggtttc caaactgctt ttaacaatgg 4560
tagtgctcct ggaacaatcc ttccaagctc ctctaaggac aatatttaat tcagatacta 4620
aaggtaagac tgggtgttac ttttgTTTTg ttgtacaatt agtactttat agtcacatgt 4680
tgtatatatt aaatagccca gttttattca gacttgtaaa tagaactatt tcaatgtagt 4740
taatctaaaa acaaaaaaga aaaccccagt cacgatttgc atgttctctg taagcttcat 4800
ccatgctggg tattgcactg aatgatatat tattagggca tgttaacagt ataccagtaa 4860

cagcacttta tctcatttat atgaacacct ttgaggtgct acttaagtcc aagctctgat 4920
 gtattattca tttgtaaaga taaggtacag gaatgaacct tggtttaaag gtatttttat 4980
 atgaaaatgg tgtgttattg gaagatgtta aaatgctaata ttgagagaag taggagtgtta 5040
 tctgttttat atgttgggat gtgaaattta ttttctaaaa ttgaggagaa ggaagttata 5100
 tatttgcaga atgttttaaa gtgaattggt gtaatgaagt tcctgtgaac atcattatgg 5160
 ttttgtacaa ataggaacct ctgatgtcat tcttcaacgt ttgttcctgt gtgtacaatt 5220
 gtactttgta tgaacagctt tatcattttt ataggctttc catgagtttt gctgtaacta 5280
 ctatggctta tttattttct ttaatatattg tgaaagtctt actcctttgt tagttttgtt 5340
 tctgcacaac tactgtactt ttccatatgg aataaagact attaata 5386

<210> 1748

<211> 3924

<212> DNA

<213> Homo sapiens

<400> 1748

ttaatgagca cttagtact tcatttggtc aagaatattt gatttcctat tgtgtgcatg 60
 ggaggtttac aaaagacaga ctgtccctat gcttgtgcag cttacaatct atttaactat 120
 ,tagaggccct gtgagatgta ggcagttatt tacagatgag aaaactaaca cagcagtggc 180
 aatgctggga atggccaaca ggcttggat tcaactcagt ttagcaccaa agccagtgtc 240
 attaagacct gaagttcaac agtggattcc ttaccaaata gtttttaaag tatgctctaa 300
 ggaacaatgt tttaatgaaa tcttggatac aaagtggat aaaaggtttc tgagcataaa 360
 gtagctcttc agtagttaca acctattctt ttgcatacat agcctttcct tccctgcaaa 420
 aagttaagcc tgctaagtat tcagatccct gtcatttact tctcagcagt ctcattcaag 480
 ctaaggcttg catactcaat ctgtgccgta gtctacacat ttttagggga tatttcacca 540
 aaatacttga catggttaaca tcactattat atactagaag caagaatttt acacttatgc 600
 tctaagtgat ccttttaaaa attttctgaa ctatttgagg aaagtattat ttgtcttaaa 660
 gggtaacagc ctcatgaaat gacttgagga ttccaatttc ttattagctt aagatgtcac 720

ttaaaagctg acagccctca tctgtctcat tggctacata agagctgcag aagatccatc 780
aataaccaag tataaagaaa gattttaaga ctaagtacca attgaggtaa acatgaaacc 840
gttataaagc aaattaaaaa aaaatacatt aggaaaagtt acacaaatga agtgtacgcc 900
tattatattc ccaaggcatt tttgtgggga ggaacagtgc tgcttggttg cttttccata 960
ttccctcata caaaaatgct aaaatctatt cgcaagagtt ttgagctaac ttcgtctctt 1020
aaattgcttt aattgtcatc aataaaaaca aatatgaaaa accctagttt aaaaagcggg 1080
tcaagaataa tgtaaaacta tacatatagc ttattttctt catttactag aggaggaaaa 1140
atagaaccaaa aaaatgcatg aactcctgct tttcaatctg attacctcaa actgaaaagc 1200
aggtgaaagg aggaatattt cagtgtgttt ttacatctga atccaaggga tccaagtggc 1260
ccagcagaaa cggaattctt gttaaaatga ctgattctcg tgcatgtgaa aggctctggg 1320
gaatgaatac ctgtttggtc caaacttact gtatcataat gctgtatatg ttgaaaacgt 1380
aatacctggt aatgtcctaa tgaatcacgt tttgcagaaa acaccgtaag aaacacttca 1440
gtctttctgt agtttccatg catatttcac catggttcgc actctgatcc tcacttggtt 1500
tagaaagcaa ttcagtttct ttcaaaccac cataacctaa gtgctgcccc atccttcacc 1560
tttaccctag aaaatctgag aatccattgg tgtgtactgt gtgacacaat gccaacaagc 1620
ctctggtttc taatactggc aggaccaaca cacatacttt agtgggaata taatctgttt 1680
agacgataat agagggaat gccataatta acaaactctc cttcactcac cactatectc 1740
attcttgcag ttgtcaaggt gtaagcctca ctgtaagtta caaagctacc actcccctct 1800
ttaagaacac atagcttagg attgccttgg cgatgcgggc tcttttttgg ttccatatga 1860
acttaagtag ttttttccaa ttctgtgaag aaagtcattg gtagcttgat ggggatggca 1920
ttgaatctgt aaattacctt gggcagtatg gccattttca caatattgat tcttcctacc 1980
caagagcatg gaatgttctt ccatttgttt gtatcctctt ttatttcctt gagcagtagc 2040
ttgtagttct ccttgaagag gtccttcaca tcccttgtaa gttggattcc taggtatttt 2100
attctctttg aagcaattgt gaatgggagt tcaactcatga tttggctctc tgtttgtctg 2160
ttattgggtg ataagaatgc ttgtgatttt tgtacattga ttttgatatcc tgagactttg 2220
ctgaagttgc ttatcagctt aaggagattt tgggctgaga cgatgggggtt ttctagatat 2280
acaatcatgt cgtctgcaaa cggacaattt gacttcctct tttcctaatt gaataccctt 2340
tatttccttc tcctgcctaa ttgccctggc caggacttcc aacactatgt tgaatacgag 2400
tggtgagaga gggcatccct gtcttgtgcc agttttcaaa gggaatgctt ccagtttttg 2460

cccattcagt atgatattgg ctgtgggttt gtcatagata gctcttatta ttttgaaata 2520
cgccccatca atccctaatt tattgagagt ttttagcatg aaggggtgtt gaattttgtc 2580
aaaggctttt tctgcatcta ttgagataat catgtgtttt ttgtctttgg ctctgtttat 2640
atgctggatt acattcattg atttgcgtat attgaaccag ccttgcaccc cagggatgaa 2700
gcccacttga tcatggtgga taagcttttt gatgtgctgc tggattcgtt ttgccagtat 2760
tttatccagt tagaatggca atcattaaaa agtcaggaaa caacagggtgc tggagaggat 2820
gtggagaaat aggaacactt tcacactgtt ggtgggactg taaactagtt caaccattgt 2880
ggaagtcagt gtggcgattc ctcagggatc tagaactgga aacaccattt gaccagcca 2940
tcccattact gggatatata ccaaaggact ataaatcatg ctgctataaa gacacatgca 3000
cacgtatgtt tattgtggca ttattcacia tagcaaagac ttggaacca cccaaatgtc 3060
caacaatgat agactggatt aagaaaacgt ggcacatata caccatggaa tactatgcag 3120
ccataaaaaa tgatgagttc atgtcctttg tagggacatg gatgaaattg gaaatcatca 3180
ttctcagtaa actatcacia gaacaaaaaa ccaaaccacg catatttctc ctcataagtg 3240
ggaattgaac aatgagatca catggacaca ggaaggggaa tatcacactc tggggactgt 3300
tgtgggggtgg ggggatgggg gagggatagc attaggagat atacctaag ctagatgacg 3360
agttagtggg tgcagcgcac cagcatggca catgtatacc tatgtaacta acctgcacia 3420
tgtgcacatg taccctaaaa cttaaagtat aaaaaaaaaa aaaacatagc taaagaaaaa 3480
ctgcatatgc aatcatacc gtattcattt ttttatttaa cttggggatg gaatggggat 3540
agcatacatt ttatttgtac aatatttaac aatcacttat ccaaggtggg gttttatggg 3600
gattttaagc tttctgttaa atacttgcag aaaaaatagc aagtacgatt tgacagtagt 3660
acaataacct gtgccccaaa cacaagaaat acagagtaaa gcgaaaataa ctgcttacca 3720
atattctgag aggtaacaaa tgggatatgg gttgagactg cataaaaaac gtactgctgg 3780
ttgaatatct gaggtaaatg atgttcaatc aagatgctac ttgtatcatt ttgcccataa 3840
atggataaat aattttatgc atatcatacc aaatgttcct aaaaagtaat ctttcaaaaa 3900
agtataaaag agaaactgga aagt 3924

<210> 1749

<211> 3295

<212> DNA

<213> Homo sapiens

<400> 1749

atgtttagc	tgtgagttgg	aagcacaagc	tactcttcac	ccacatgctt	tgtatgttgt	60
aactattcag	attgttgtgt	tcaaatgtgc	atttggatta	gcaaagccag	gcaaaattat	120
gttcccctga	acggacaaaa	ttagatcact	aagggtagtt	cctcggttgt	tccaaatgcc	180
tttttttttt	ttttttggtg	acagggtctc	tgtcaccag	gctggagtgc	agggtgcaat	240
catggttcac	tgcagcctca	ccctcccagg	ctcagacaat	cctcccactt	cagcctgcca	300
agtagctggg	atcacagact	gccttttaat	tatttttttg	gagatggggg	ctccctatat	360
tgcccaggct	agtctcaaac	tactggactc	aatgatcct	cttctccatg	gcctcccaaa	420
gtgctgggat	tacagacatg	agccactgtg	cctggcccca	tgtactttca	catcttacct	480
tcctcccata	gattttcatt	taaaatggat	atgggttaag	tgttattatc	ctcattttat	540
taatgaggaa	aattgaggca	tggcatagtc	agatggcatg	ctcaggttac	ctgctagtgt	600
gtactggagc	aaacatagaa	gtatggtctt	atatctccct	accccaggta	cttccatttc	660
tgccattgtg	tattgtgcca	ttctttcccc	acagcctatg	cccacccctac	aatatctgtg	720
aagattgtga	agcaggggcca	tatggccatg	acactaacca	cgtcctgctg	aagttgcgta	780
gacctgttgt	gggctcctct	gaaccgttct	gtcactcaaa	gtactctact	cctcgtcttc	840
ctgctgctct	ggaacaagtc	aggctccaga	aacagggtga	taagaacttt	cttaaagcag	900
aaaagcaaag	gttgcgagct	gagaagaaac	aacgtaaagc	agagggtcaag	gaacttaaaa	960
agcagcttaa	actccatagg	aaaattcacc	tgtggaattc	aatccatgga	ctccagagcc	1020
ccaagtctcc	tttaggccga	cctgagagct	tgtccagtc	taataccctg	atgctccctt	1080
tgcagccctg	tacctccgtt	atgccaatgc	tcagtgcagc	atttgtggat	gagaatttgc	1140
ctgatgggac	tcaccttcag	ccaggaacca	agtttatcaa	acactggagg	atgaaaaata	1200
caggaaatgt	aaagtggagt	gcagacacaa	agctcaagtt	catgtgggga	aacctgactt	1260
tggcttccac	agaaaagaag	gatgttttgg	ttccctgcct	caaggccggc	catgtgggag	1320
ttgtatctgt	ggagttcatt	gccccagcct	tggagggaac	gtatacttcc	cattggcgctc	1380
tttctcacia	aggccagcaa	tttgggcctc	gggtctggtg	cagtatcata	gtagatcctt	1440
tccccctccga	agagagccct	gataacattg	aaaagggcct	gatcagctca	agcaaaaactg	1500

atgatctcac ctgccagcaa gaggaaactt ttcttctggc taaagaagaa agacagcttg 1560
gtgaagtgac tgagcagaca gaaggacag cagcctgcat cccacagaag gcaaaaaatg 1620
ttgccagtga gagggagctc tacatcccat ctgtggatct tctgactgcc caggtggaag 1680
attcagcact ttgaaggga aggacagag ggagagagca caggagagaa ggtggtagag 1740
ccataggcag taatcaggaa atcagagata tgcccacttt gatctagtca ggtatattta 1800
atgggaagga gatcacccat ggaagcaagt ttgtaaacta gatgtttcct ctttgaattg 1860
ggaactcaat cctgtacttc ccacaaaact cccttttagtt gcctcttcac cttggcctag 1920
ctaattctcc ttcatactg ctgcattttc tctttcctgc tattgggtta tttcaacatc 1980
taattcccat ttaactcttc ttgttttcac ttgtctgggg acaggcatga atttgaacag 2040
agttgaatac gaaatgatgt ggaaatggtc tacagggtccc atcaagacat ggctccagca 2100
tgcactccaa acagcctaac attgtctttt tttataggac ctgctgtcct ttgagctgtt 2160
ggatataaac attgttcaag agttggagag agtgccccac aacaccctg tgggtaagaa 2220
tgtcactcat ttcactttgt tcgtcttact aataggcaca aaagtaccac agcctagaca 2280
ctggtagtgt tttattctga ggaaatggca aggatttctc ccacagtagg atagtaaagc 2340
agcaatcatg gatccgtttt tcttctttcc tgtcctttgt caaaagtaac aacatgctgg 2400
gcatggtggc tcgtgtctat aatcccagct ctttgggagg ccaaggcagg aggatcactt 2460
gaggccaggg tttgagacca gcctgggcaa catggtgaaa ccccatctc tacaaaatta 2520
cttttaaaaa ttagctgggt gtggccaggc acggtggctc acgcctgtaa tcccagcact 2580
ttgggaggct gagacgggca gatcacctga ggtcgggagt ttgagaccag cctgaccaac 2640
atggagaaac cccttctcta ctaaaaatac aaaattagct gggcatggtg gcacatgcct 2700
gtagtccgaa ctactcggga ggctgaggcg ggagaattgc ttgaaccag aaggcggagg 2760
ttgtggtgag ctgagattgc accattgcac tccagccagg acaacaagag caaaactccg 2820
tctcaaaaaa aaaaaaaaaa aaaaaattag cttggcatgg tggcctgcac ctgtggtccc 2880
agctaccagg gagactgaag tgggagaatc tcctgatccc aggaggcaga ggctgcagtg 2940
agccaggatt gtgccattgc tctccagcct ggatgacaga gtgaaacca atctcaaaaa 3000
acaaacaaaa aaaagaggct gggcacggta gctcacgcct gtaatcccag cactttggga 3060
ggccaaggct ggtggtatcac aaggtcagaa gttcaagacc agcctggcca agatggtgaa 3120
accccatctc tactaaaaat acaaaaatta gccaggcatg gtggcagggtg cctgtaatcc 3180
cagctactcg ggaggctgag gcagagagtt gcttgaacct gggaggcgga ggttgcagtg 3240